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ABSTRACT

This document, intended as a resource for school psychologists, contains articles addressing a variety of psychological and behavioral problems of children and adolescents. Each chapter includes the following content: background information concerning the specific topic, approaches for assessing the behavior of concern, intervention possibilities, monitoring methods and other considerations, and references. The articles are: (1) Psychological Interventions: The Foundation of Social Psychology, by Daniel J. Reschly; (2) Behavioral Intervention: It Doesn't Do Any Good in Your Briefcase, by David Happe; (3) Helping Children Cope with Parental Problems, by Marcia B. Shaffer; (4) Issues in Counseling the "Homosexual" Adolescent, by Gary Ross-Reynolds; (5) Children Coping with Divorce: School Psychological Management and Treatment, by David Kieffer; (6) Diet and Behavior: Is There a Relationship? by George M. Harper; (7) Runaways, by Alex Thomas; (8) Enuresis, by Rex Shahriari; (9) The Forgotten Ones: Helping Children and Adolescents Cope with Death, by Anne M. Elbert; (10) Adolescent Peer Group Relations: Problems and Intervention, by Philip A. Mann; (11) Tic Disorders, by Joseph Richard; (12) Depression of Students: A Definition Proposal, Diagnosis and Treatment, by Jon A. Ford; (13) Psychosomatic Disorders in School Age Children, by John C. Polifka; (14) Truancy: Out of Sight, But Never Mind, by Kerry T. Hinkle; (15) Adolescent Pregnancy, by Geraldine M. Lewis; (16) Hyperactivity in Children: Issues in Definition, Diagnosis and Intervention, by Joseph E. Zins and Charlene R. Ponti; and (17) Substance Abuse, by William D. Petok, Sharon Woodman, and Donald K. Pumroy. (WAS)

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Psychological Approaches to Problems of Children and Adolescents

Project Coordinator: Jeff Grimes, Editor

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FORWORD

As school psychologists we are faced with a variety of complex problems in the behaviors of children and adolescents referred for special services. These behaviors may involve truancy, drug abuse, depression, tics, peer pressure, coping with death, coping with divorce, coping with sexual identity conflicts, hyperactivity, pregnancy, enuresis, runaways, psychosomatic difficulties, problem behavior related to diet and difficulties resulting from parents coping with problems. All of these cases occur every year, some frequently, some infrequently, but they are part of the concerns referred to school psychologists.

Each chapter includes the following content: background information concerning the specific topic, approaches regarding assessment of the behavior of concern, intervention possibilities, monitoring methods and other considerations. This book is designed as a resource for you when you are working with these behaviors in a school and home setting.

There are many people whose work has been critical in making this publication possible: the authors have put countless hours into the thoughtful writing of the chapters; editorial reviewing by Nancy Brees, Susan Graham-Clay and others help provide consistency in format and identifying necessary typing modifications; secretarial services of Jody Crane, Jeri Burdick, and Joyce Short were invaluable in creating the final version of the text; original cover design by Tonya Cox; John Lanham and John Lee for processing accounting data related to the project and Dick Fischer for being ever vigilent to administrative issues related to this project. It's a combined effort, done for you, the school psychologists who work with the children and adolescents who have special needs. We hope this volume will, in fact, be a useful resource that helps in your successful work with children and youth.

J.G.

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Psychological Interventions: The Foundation of School Psychology

Daniel J. Reschly

Abstract: The school psychologist's role with psychological intervention within a school setting is analyzed in this chapter. A psychological approach to problems, involving use of theory, research, and a problem solving method, was viewed as the most important potential contribution of school psychologists. Strategies were discussed for establishing and expanding the psychological interventions aspects of the school psychology role.

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Introduction

This volume demonstrates changes in our profession as well as any other single source in school psychology. School psychology has changed and continues to change. One of the most important areas of change is the school psychologist's involvement with interventions. In this chapter I attempt to provide an overview of trends in school psychology, influences on the role of school psychologists, and, most important, a framework to analyze the problems and interventions described in other chapters.

The content of the chapters that follow varies considerably. Many of the chapters are devoted to syndromes or problem behaviors that have been recognized for centuries e.g., enuresis, while other chapters focus on problems recognized relatively recently, e.g., abuse or childhood depression. Accurate diagnosis or identification is a problem mentioned in nearly every chapter, (enuresis was an exception), and the inadequate, sometimes confusing, empirical basis for treatment was mentioned by every author.

These problems then represent the essence of the professional practice of school psychology requiring, as they most surely do, the application of the problem solving methods of the behavioral scientist side of professional psychology as well as the use of humanistic, interpersonal skills. An impressive feature of the chapters is the review of theory and research pertinent to the problem area. Beyond theory and research, and perhaps more impressive, was the approach used to design interventions. This approach, discussed later in this chapter, reflects a set of attitudes and a cognitive style, not simply a cookbook of pat answers to narrowly defined problems. Finally, the credibility of the authors was enhanced by the use of personal experiences and case studies which, in most chapters, illustrated the cardinal features as well as typical variations among cases. These people have been there, and what they have to report to us is valuable to our practice of school psychology.

Before going further I wish to comment on the editor of this volume, Jeff Grimes. Perhaps this paragraph, buried toward the end of a long introduction, may escape his editorial scapel and thereby enable me to say something that is long overdue. Jeff deserves an enormous amount of credit for the development of this volume, and many other volumes similar in scope and sophistication. This volume, like several others edited by Jeff over the past decade, is of commercial quality. I, with the other authors, wish to acknowledge and express gratitude to Jeff for his skills in drawing from us the best we have to give.

Psychological Foundations of School Psychology

Mixed identity, educator or psychologist, has been a persistent issue in school psychology for at least 30 years (Bardon, 1982; Cutts, 1955; Reschly, 1982). The issue over whether education or psychology is the dominant foundation for the practice of school psychology has not been resolved and, apparently, cannot be resolved. The identity issue is part of a number of broader political disputes within and between national associations, a circumstance which nearly ensures that the debate over identity will continue.

My personal view is that school psychology reflects both disciplines with more influence from psychology. There clearly is more emphasis on and greater use of psychological foundations as a basis for analyzing various problems and for developing interventions in this volume. The psychological foundations involve the use of research, and an empirical approach to interventions as a means to solve problems. It is important to note that, implicitly, the authors use a problem solving approach from psychology as much as specific knowledge from psychological research. It is this problem solving approach which can be used even when the knowledge base is limited and sparse that makes the psychologist's approach scientific rather than random or trial and error.

Use Of Theory

Every chapter I have reviewed made heavy use of theory. These authors illustrate the practical, everyday usefulness of theories. Theories clearly are not merely the subject of sterile academic debate in ivory towers engaged in by frightened professors who need to publish to avoid perishing! Theories are used to summarize knowledge, to generate hypotheses, and to guide interventions. Good theories, or at least useful theories, can be tested through research and through assessment with the client.

In most instances there are several theories, sometimes competing and incompatible, for a specific syndrome or problem (See Ford, this volume). Knowledge and use of different theories enables the school psychologist to use a variety of approaches and possible interventions with a specific client. Moreover, clients may exhibit the same symptoms or problem behaviors, but respond to quite different interventions which, in turn, were developed from competing or incompatible theories. Thorough knowledge of theories provides a broader framework for analyzing problem behaviors as well as an expanded array of ideas for interventions. Whether a specific theory is more right than wrong or whether it can be applied to all cases is less important than the usefulness of the theory in a general problem solving approach to be discussed shortly.

Application Of Research

Without exception, the authors stress the importance of utilizing the available research. Also, without exception, the authors pointed out the limitations and inadequacies of the available research. If we as school psychologists had to limit ourselves only to those interventions which are proven effective, with specific populations, in specific settings, with specific problems, we could do very little. Use of the available research is essential in order to enhance our chances for success, and to avoid what could be disastrous consequences, e.g., believing the old myth that persons who talk about suicide never actually attempt or commit suicide which, as noted by Slaats in this volume, is unequivocally refuted by research.

Judicious use of research results, especially understanding limitations, is essential. Some examples of frequent mistakes, some of which are discussed by the authors, are mentioned briefly here. Scientific knowledge in any discipline, especially (perhaps) psychology, is tentative, best understood as a probability statement. Much of the research cited in these chapters is based on groups, often involving contrasts between one group who had or exhibited the syndrome and a "normal" control group. Group differences, although statistically significant, may not apply to individuals. A strong feature of several chapters is the care exercised by authors in stressing individual variations from general group trends. Although certain common features exist in the various diagnostic subgroups (e.g., hyperactivity), considerable variability among the individuals within the subgroup is typical (See Zins & Ponti, this volume).

Another potentially serious problem in interpreting research results arises from wide variations in base rates, i.e., the naturally occuring rate or proportion of the population exhibiting some behavior. Consider the following. Several studies support the conclusion that about half of all adjudicated juvenile delinquents come from broken homes. That is a fact which cannot be disputed. But what can we say about the risk of juvenile delinquency among adolescents in single parent, "broken"homes? Is the group trend useful in prediction for individuals? Are half or close to half of all adolescents from broken homes at high risk for juvenile delinquency? Clearly not. The problem is wide variations in base rates. To finish the illustration, assume that 5% of all adolescents are adjudicated delinquents and that 25% of all adolescents are in broken homes. Applying these data to a population of 1000 adolescents yields a total of 50 delinquents and a total of 250 adolescents from broken homes. As noted earlier, half of the delinquents would likely be from broken homes. In our example, only 25 of 250 adolescents from broken homes would be delinquent. An accurate statement reflecting these relationships would be, the majority of juvenile delinquents come from broken homes, but the overwhelming majority, in fact, nearly all, adolescents from broken homes are not juvenile delinquents. The apparent contradiction in the statement is resolved by considering the wide variations in base rates. Incidently, many of the assertions about profiles or subtest patterns on standardized tests are equally worthless in prediction for individuals because of the same kind of variations in base rates.

One final comment about the use of research knowledge, relevant to many of the chapters, has to do with prevalence estimates. Prevalence estimates are almost always inflated due to methodological inadequacies of the research as well as, I suspect, sociopolitical reasons. Examinations of the prevalence of mental retardation led to recognition of several flaws, e.g., assuming all diagnoses were permanent, assuming that all eligible persons are diagnosed, and so on (Mercer, 1973; Reschly & Jipson, 1976; Reschly, 1981). The sociopolitical reasons for exaggerating, probably unintentional, are nonetheless quite obvious. The need for action in the form of legislation, private donations and public appropriations is made much more intense if significant numbers are involved. Of course, this is true only to a point. When the numbers become too large and public monies are sharply limited, e.g., as with learning disabilities in several states now, the large numbers or percentages are counterproductive to the efforts to support services and programs. Prevalence estimates are used in different ways in this volume, sometimes with caution and skepticism and sometimes, apparently, with uncritical acceptance.

The reader is urged to view all prevalence data, here and in other sources, with skepticism.

The research base for our interventions is neither comprehensive or complete. There are many gaps. However, these gaps do not reduce our work to random guessing. As has been noted, we derive many ideas from theory and knowledge of developmental patterns. These ideas, although unproven, or what is more common, partially validated, can be highly useful if combined with an empirical approach to analyzing and solving problems.

Empirical Approach

Much has been made thus far of the importance of an approach to solving problems that is firmly rooted in psychology. It might be more accurate to regard the general approach as scientific, obviously not unique to psychology, and the content (theory, research, etc.) as psychological. These distinctions are not particularly important to us here. The general empirical approach is crucial.

The authors stressed the importance of assessment, defined here (after Salvia & Ysseldyke, 1981) simply as gathering data to be used in making decisions. Accurate assessment is important throughout the process of screening, diagnosis, intervention, and evaluation. The hallmark of good psychology, in research, theoretical, or applied contexts, is precise description. Precise description, accomplished in a variety of ways (see later sections on trends in assessment and the referral process), is used in formulating hypotheses, in examining applications of theoretical and developmental knowledge, in formulating an intervention, in monitoring the intervention, and in evaluating outcomes (in my practice, it is usually evaluating outcomes, then revising interventions, or if at first you don't succeed,...). Precise description through accurate assessment provides the basis for defining problems, for applying research and theory, for developing interventions, and so on. The attitude, the cognitive style, the overall approach is empirical and analogous to experimental methods.

The major difference between applied and experimental approaches, has to do with purpose. The purpose in applied work is to determine if a change took place, and if the change in behavior was positive and worthwhile. In contrast, the purpose in experimental psychology is not only to document change, but to determine, if at all possible, the cause of the change. Often the terms evaluation and research are used in place of experimental and applied. Sometimes we become excessively concerned with research or experimental methodology in our applied work. We must keep in mind that our purpose is change in a desirable direction. Determining the cause of the change is much less important. Thus, the very conditions which are of concern to the experimental psychologist, called threats to internal validity by Campbell and Stanley (1963), are the very conditions which we should maximize and exploit in the development of our interventions. For example, novelity or so called Hawthorne Effects, surely something to be controlled, covaried, or obliterated in the laboratory, should be used intentionally in the applied setting as a means to enhance the likelihood of success. These tricks of nature which foul our experiments are not sufficient to solve the problems we face in applied settings. Their effects are often exaggerated (e.g., if regression to the mean is such a strong phenomenon, why can't we, as a solution to reading problems, simply continue to give tests to poor readers until they regress to the mean?) The point is that evaluation of effects is crucial to the empirical approach. The purpose of this evaluation is to assess change, not discover causes.

In recent years methods have been developed for evaluating interventions with individual cases that allow at least tentative inferences about causation. These methods, often referred to as N=1 research, are highly recommended for use in applied settings (Kratochwill, 1978). Some journals, notably the School Psychology Review, publish N=1 studies in special sections. The N=1 methodology provides an opportunity to combine research and practice within the usual school psychology assignment.

The psychological foundations of school psychology are illustrated well in these chapters. The overriding influence is the psychological approach to solving problems which combines the scientific method with theory, research, and empiricism.

Influences on the Role of School Psychologists

The probable reader of this chapter no doubt has by now learned to be wary of discussions of the school psychology role. I intend to avoid repeating the standard discussions of influences on the school psychology role. The major factors according to many authors are external both to the profession and to individual school psychologists. External influences, e.g., State department of education guidelines, school district policies, etc., certainly are significant and I do not intend to minimize their impact or the importance of attempting to, would a correct verb be enlighten?, these forces.

Shaping The Role

Our concern with external forces can be excessive causing us to lose perspective on the things we can do to shape our roles. Although bordering on glib, the Pogo cartoon comment, paraphrased here, "I (We) have met the enemy and he/she is me (us)" is all too applicable to most of us. Incidently, this analysis applies equally to practicing school psychologists in university and school settings.

An analysis of strategies we can use collectively and individually to shape our roles was provided at the Spring Hill Symposium by Grimes (1981). Shaping the school psychologist's role was seen, like any other intervention, as a matter of precise description of current behaviors, determination of what changes are needed, use of theory and research to develop an intervention, applying that intervention, monitoring application, and evaluating outcomes.

I suspect a variety of factors interact in how we shape our role. As noted earlier, external forces and expectations of others in the system are important. Of equal importance, perhaps more important, are our perceptions of what we could do, our confidence in our skills, our assertiveness in seeking opportunities to apply these skills, and our competence in providing those services. The essential first step, as with any intervention, is accurate description of current behaviors and precise description of the nature and direction of desired changes.

Influences From Theory And Research

Another significant factor, usually ignored, is the influence of advances in psychological theory and research. A quick perusal of school psychology texts and journals from the 1960s (Gray, 1963; Magary, 1967; White & Harris, 1961) indicates clearly the change in views regarding interventions with the kinds of problems discussed in this volume. At that time, therapy was viewed rather narrowly as a rather mysterious process of treating the complex underlying dynamics associated with observed symptoms. This sort of therapy was generally regarded as beyond the scope of school psychologists because of the extensive time required with each case and the advanced preparation which many school psychologists did not have. Over the past 15 years there has been a revolution in how therapy is perceived, the theoretical bases for therapy, and the methods for delivering therapeutic services. Today, there are a variety of therapeutic methods, many of which are relatively short term. There is much greater use and application of basic learning principles. The critical changes have been in theory (e.g., see Bandura, 1969) and in research. Although serious gaps still exist, and effective treatment for some syndromes still is largely unavailable, the theoretical and technological bases for interventions are far better today than 15 or 20 years ago.

In order to appreciate the advances in theory and research more fully, the interested reader is encouraged to keep track of the date of citations pertaining to interventions discussed in the chapters that follow. What is done depends to a large degree on what is known and what has been attempted. The recent advances in theory and research make possible a broader and more effective role for school psychologists.

Trends in School Psychology

This section is largely based on previous articles (Reschly, 1980, 1982). The demand for my reprints of those articles has not been overwhelming, and I can send only so many copies to my mother. I would be pleased (as well as flattered) to send copies to anyone who makes a request.

This is an abbreviated version of my other comments on trends in school psychology. Many of these trends are quite apparent in the other chapters of this volume.

Outcomes Criterion

Perhaps the most important trend today is emphasis on the outcomes of assessment activities for individuals. Although a seemingly obvious point, or it certainly becomes obvious if it is your own child being assessed, we have too often judged the quality of our assessment by the sophistication of our analyses and the apparent insight in interpretations. Increasingly, I believe, we are recognizing that sophisticated analyses and insightful interpretations,, while satisfying to us, may not be useful to the client or those significant others concerned about the client. The outcomes criterion can be taken too far, something I sometimes do to make a point. I acknowledge that it is worthwhile to know more about, and to describe precisely, even if there is nothing that can be done about the disorder. However, in most instances there is something we can do if our assessment is precise and relevant to the problem. The outcomes criterion is used implicitly by most of the authors in their stress on the importance of relating assessment to intervention and evaluation.

Purposes Of Assessment

A very important trend, fostered by the work of several scholars, but especially Salvia and Ysseldyke (1981), is more emphasis on clarification of the purpose for assessment. Purpose can be analyzed by seeking clear answers to the question of, What decision(s) do I need to make? The kinds of decisions we typically make have to do with classification/placement or program planning/intervention. Both types of decisions require considerable skill, but different kinds of assessment devices. The classification/placement decision, part of which is determining whether the child is eligible for and needs special education, usually requires a norm referenced approach. The questions are, How much does this student deviate from age/grade level expectations or norms for social/emotional behavior. A crucial issue usually is the size of the deviation from some norm, which could be based on national averages, classroom or school district expectations, etc. In contrast, program planning/intervention decisions require information on specific skills or competencies that have and have not been acquired, or which may or may not be exhibited in specific situations. Here a criterion referenced perspective is needed because the essential questions are what sort of changes should be attempted.

Some of the more serious mistakes we make arise from failure to clarify the decision that is required. Too often we have attempted to use instruments that have excellent qualities for one type of decision for all decisions.

Expanded Approaches To Assessment

Closely related to the trend regarding purposes, is expansion in approaches to assessment. In recent years many more procedures for gathering information have been researched and applied. Many of these procedures involve unstandardized, even ad hoc, devices. Behavioral observation schedules, structured interviews, rating scales, checklists, and so on have been used increasingly in all phases of developing, implementing, and evaluating interventions. Kieffer, this volume, provides several examples concerning uses of these kinds of devices to evaluate the effects of divorce adjustment interventions.

The reliability and validity of these informal assessment devices often have not been investigated. Clearly, major classification decisions should never be made on the basis of a single, ad hoc instrument. However, decisions made, at least in part, from such devices can be reliable and valid when these devices are constructed carefully, applied as objectively as possible, and supplemented with information from other devices, observers, and settings. Convergence in information across settings, observers, and assessment devices provides a solid basis for making decisions.

Much of the expansion of assessment procedures has developed from social learning theory and applied behavior analysis. In the late 60s and early 70s much of this work involved very precise procedures for counting behaviors and relating these frequency counts to specific envirnmental events. Although narrow and limited, these procedures often were an integral part of successful interventions. In recent years there has been more emphasis on rating scale, checklist, and interview methods which can be applied to a broader range of problem behaviors (Cautela & Baron, 1977; Cove & Hawkins, 1977).

The expansion of assessment procedures has fostered the development of closer links among identification of problem behaviors, implementation of interventions, and evaluation of outcomes. Several chapters in this volume provide excellent examples of close links among different phases of the intervention process.

Designing and Implementing Interventions

One of the most impressive features of these chapters was the near unanimity on taking action to treat problem behaviors that seriously impede learning and adjustment. These authors clearly do not believe in benign neglect, or simply waiting for children to outgrow serious problems. Although I may be going beyond the views of several authors, it seems that doing something is just about always better than doing nothing. Let me hasten to qualify that generalization. The intervention should be based on theory and research in so far as that is possible; it should make "common sense", an operational definition of which might be that the intervention is discussed with and approved by colleagues; and, of course, the intervention should be within legal and ethical quidelines. Interventions which meet these criteria are highly unlikely to aggravate the problem and, if for no other reason than novelty effects, are likely to improve the situation. In the remainder of this chapter I attempt to discuss additional factors which enhance interventions.

Working With Others

Several authors stressed working with others in a variety of ways. For example, Shahriari pointed to the necessity of a good medical evaluation prior to instituting interventions with enuretic children. In this example, as well as with several other disorders, working with others means use of expertise from other disciplines prior to or along with psychological interventions.

In many other instances working with others means establishing a cooperative relationship with persons who assist with or carry out interventions. Happe's chapter on consultation provides some valuable information on procedures that enhance consultee cooperation. Many of the interventions discussed in this volume depend heavily upon cooperation of significant others, parents, teachers, and peers. Happe's suggestions are applicable to many of these situations. Finally, when we consider the cooperation of others, especially when that cooperation is less than optimal, we would do well to analyze the motivation of the consultee or client and to apply sound psychological principles to enhance their motivation. Although unfortunate, we behavioral scientists often are more articulate about what others should do than insightful about what we could do to apply sound psychological principles with our consultees/clients. (Now, of course, that generalization applies only to school psychologists in the field, not to university faculty who are known universally for consistent use of good psychological principles in teaching and advising. If you believe that, there's this bridge...).

A final meaning of working with others may be as part of a multidisciplinary team within the school. Shaffer is on target with the suggestion that others should take on primary responsibilities for certain kinds of cases, e.g., abuse or neglect. Psychologists who try to do everything are in danger of doing nothing very well. As all readers of this volume know, much has been said in recent years about "the team." I have nothing new to add, except to note the implicit assumption in these chapters that designing and carrying out interventions with most of these disorders is not a "team" responsibility. Perhaps the greatest danger of the "team" is that it can be used to rationalize not designing interventions, particularly when, as often is the case, we feel inadequately prepared to treat a specific kind of problem.

Professional Qualifications

I learned a great deal from these chapters suggesting without doubt that my preparation to deal with many of these disorders needed to be improved. The lack of expertise and prior training often is a barrier to attempts to develop interventions.

It is all too easy to say, "I don't know about that...", as a justification for doing nothing. However, problem solving from a psychological perspective was suggested earlier as the most important skill of school psychologists. In many instances, this problem solving approach must be applied to disorders or problem behaviors for which we have not had thorough training, or nothing will be done. The choice then, in many instances, is to do something based on psychological problem solving or no treatment at all. This choice often is just as likely in urban as rural settings.

Doing something does not mean a random, trial and error approach. We should use our personal library as well as district and AEA sources for further information. Colleagues and supervisors should be consulted, sometimes immediately by phone or by other means, in urgent situations. The most important resource, however, is our professional competence as psychologists. Many of our skills are generalizable to virtually any kind of problem. Good interviewing skills, including what Slaats called, "listening with a third ear", are always useful. Knowledge and creative application of basic learning principles also is applicable across a wide variety of situations and problems. Here I am reminded of the comment by an Iowa school psychologist who said, when I expressed surprise that a simple reinforcement contingency worked so well with a particular disorder, "Does the sun come up in the east?" Well, although our psychological principles may not be as reliable as the sun coming up in the east, basic principles do apply and do work in most situations.

Clearly, it is important to recognize limitations in our expertise and skills. Often, the most effective way to observe these limitations, especially when we also consider the welfare of our clients, is to seek the assistance of others in analyzing problems and designing interventions. As we seek assistance, however, we must ensure that something is done to help the client. Seeking assistance from others, even through referral to other agencies, should never terminate our concern and responsibility for children in our case load.

Intervention Or Classification

Many of us work primarily on a referral basis. In recent years some referral procedures have become so rigid that special education due process guidelines are implemented immediately when a concern is expressed. The special education due process procedures are important, as are the various stipulations concerning the nature of the preplacement evaluation. However, many referrals are not appropriate candidates for special education consideration. Preplacement evaluations with these students are not only expensive, but almost always ineffective as well because interventions within the regular classroom usually are not developed.

There are two places within the traditional special education referral process where psychological interventions should always be considered. First, when a concern is expressed by a teacher or parent, the psychologist should be available to assess that concern. As several authors noted, initial referral statements nearly always need to be clarified through interview and observation. The Problem Identification Interview described by Bergan (1977) is an excellent approach to clarifying referrals. Subsequent to an interview with the referral source, the psychologist might, as appropriate, observe in the classroom, interview significant others, review records and so on. An obvious question is, How much can be done before parental permission is secured? The answer, though not explicit in present rules and regulations, is that informed consent rules are triggered whenever a) The child is treated differently in a way that could be noticed by casual observers or b) When consideration of special education classification and placement begins (Bersoff, 1982). Some psychological services such as consultation with the teacher, observation, etc. can be provided without informed consent. I hasten to add, however, that informing parents about concerns and seeking their cooperation is almost always in everyone's best interests.

A second point within the traditional special education system where psychological interventions should be considered is after the preplacement evaluation is completed, whether or not the child is classified and placed in a special education program. The availability of psychological interventions at this point may prevent placement or facilitate placement in a less restrictive program. Both of these results are consistent with the least restrictive environment rules and, in addition, are less expensive.

Levels of Interventions

Several authors described a continuum of interventions, from prevention through inservice training of parents and teachers, to consultation with teachers/parents, to work with groups of students who have similar problems, to individual work with students, to classification/placement. There are numerous examples of involvement of psychologists at the various levels in the chapters that follow. Efforts to intervene at different levels are important, if for no other reason, than the enormous expense of individual treatment and classification/placement.

Summary

There is a great deal of interesting and useful information in the chapters that follow. There also is an implicit challenge to all of us. The knowledge base, while improving, continues to be incomplete in every area. Those conditions create the central challenge in school psychology, to tolerate the ambiguity and uncertainty that exists and, at the same time, take decisive action with or on behalf of students. The information here reduces the ambiguity a little. I hope it helps all of us to meet the challenge of developing psychological interventions for students.

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Behavioral Intervention: It doesn't do any good in your briefcase

David Happe

Abstract: The present chapter investigates the topic of parent and teacher cooperation in behavioral consultation. A survey conducted among Iowa school psychologists indicates that the inclusion of consultee input in formulating behavior change plans is an important factor in securing consultee cooperation. Respondents reported that only about 40% of proposed plans are carried through to a conclusion. An "energy" perspective to reduce consultee response cost and improve consultation effectiveness is proposed.

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David Happe

Introduction

School psychologists in Iowa fill a diverse set of roles in their work. For over 20 years it has been suggested that school psychologists should serve as consultants to parents and teachers. In this role, the school psychologist assists school personnel and parents in the use of psychological principles to promote learning and adjustment in children (Bergan & Tombari, 1976). More specifically, consultation has been defined as a "collaborative problem-solving (relationship) between a mental health specialist (the consultant) and one or more persons (the consultees) who are responsible for providing some form of psychological assistance to another (the client)," (Medway, 1979). Consultation is a voluntary relationship in which the goal is to solve some current problem of the consultee, who profits from the relationship by gaining skills and sensitivity which may be applied to future problems (Gresham, 1982).

Consultation is conceptualized as a cooperative, two-way relationship between equal partners. The consultant contributes specialized knowledge to this relationship. As a result, any agreed upon modification in the environment or consultee behavior typically arises from some suggestion by the consultant (Reschly, 1976). The focus of this chapter will be upon the acceptance of and the adherence to consultant-suggested plans by consultees.

The specific sequence of events which occurs in consultation varies widely from psychologist to psychologist. Some may adopt a rather fixed system of consultation (e.g., Bergan, 1977) while others pursue consultation in a more informal way. Regardless of the manner in which an individual conducts consultation, most cases reach a point at which a decision is made regarding subsequent actions of the consultee. It may be decided that no further action is needed on the part of the consultee, or that the needs of the client could be served by some consultee-implemented action plan. The cooperation of the consultee in accepting, implementing, and maintaining the plan of action is the key, limiting factor in the effectiveness of behavioral consultation. Behaviors of the consultant which facilitate the cooperation of the consultee are of paramount importance. How, then, can the consultant influence consultee cooperation?

Martin (1978) describes two forms of social influence power which are available to the consultant. The first of these, expert power, results when person "A" attributes to person "B" knowledge or skill which "A" feels is necessary to meet his or her goals. In general, the older individuals are, the greater the level of their education, and the more relevant experience they possess, the more likely they are to be seen as an expert. This suggests that the common view of older teachers as being rigid and inflexible in consultation may be as much a function of consultant age as of consultee age.

Martin makes several key points regarding the nature of expert power. He points out that a given individual is usually attributed expert status in only a restricted range of content areas. When an individual seeks to exert expert power outside this range, their attributed expert power may be reduced. This is a crucial point as school psychologists tend to serve as generalists and face a broad spectrum of problems in their work. The likelihood is that psychologists often face problem areas in which their knowledge is only cursory. Under these circumstances, if all requests for consultation are honored, expert power may be lost. The practical implication may be that a psychologist should draw upon his or her resources (colleagues, printed materials, etc.) before offering "expert" knowledge in an area of limited expertise.

The second form of power which Martin describes is referent power. Person "A" is attributed referent power when person "B" identifies with him or her. Martin gives the examples of a doctor with a good bedside manner, the neighbor who is easy to relate to, and the understanding therapist as those who are more sought after and who are more effective than those without referent power. In order to maximize effectiveness, the consultant who is perceived as an expert must balance this perception by developing areas of commonality with the consultee. The consultant who comes from outside the organization of the consultee (as is typical in Iowa) may be seen as highly expert but may not develop the identity with consultees which is important in maximizing influence in consultation. Conversely, the consultant who has accrued a great deal of referent power through a long-term assignment in the same school system may need to accentuate his or her areas of expertise to maximize effectiveness.

Martin's contentions are reflected in a study by Reinking, Livesay and Cole (1978). In this study, consultative services were provided to ward nurses in a state hospital for the mentally retarded according to one of three models, Expert, Resource, and Process. Expert consultation in this study was defined as being a prescriptive, problem-specific process in which consultee training was minimal. Resource consultation provided knowledge of alternative methods to consultees who made the decision among alternatives for the specific case. Process consultation aimed less at the specific problem than developing general problem solving ability. The consultant, in this model, avoids offering his own solutions while helping the consultee define the problem, assess therapeutic potential, and develop and evaluate a treatment plan. The dependent measure in this study was the number of psychological treatment programs initiated by the consultees. The Expert model was found to be no more effective than the no-consultant control. Both Process and Resource models were significantly more effective than the Expert model and the Process model produced the greatest change from baseline during the consultation program and during follow-up.

The effectiveness of the Process model is predicted by Martin (1978) who points out that consultation is not a unidirectional influence process. The optimal consultation relationship is one in which both consultant and consultee possess expert power. The consultant is perceived as being expert in the area of human behavior and the consultee is seen as possessing expert knowledge of the work setting, the clients, and the demands of his or her occupation. Referent power, that is identity or commonality, is attributed to the consultant by the consultee and vice versa in an optimal consultation relationship.

It is important that practitioners hold the view that consultation is bidirectional. Sandoval, Lambert and Davis (1978) go so far as to state that "it becomes evident, in our view, essential to the development of consultant skills is learning how to be a consultee." Effective consultation is a complex process. It has been stated that learning to become a consultant is "an ambiguous, frustrating experience which is apparently not made easier by seasoning in other professional roles" (Mann, 1973). It is likely that the indirect nature of consultation with its inherent need to understand the point of view of the consultee contributes to the vagaries and frustration. A plan of action must meet the needs of the client to produce a desired change, but the plan must also meet the needs of the consultee or implementation will not occur. A logical first question is "What does the consultee want from consultation?"

Fedner, Biacchi, and Duffey (1979) addressed this question by asking a sample of special education teachers to rank five consultative strategies in terms of their need for these interventions. Ranked first was "Explain techniques to alleviate the child's difficulties" (mean rank = 1.58), and ranked second was "Describe 'dynamics' of the child's problem" (mean rank = 1.87). The first choice of the participants in this study suggests that consultation could be a relatively straightforward process of providing help-seekers with specialized knowledge. However, their second choice, and not second by far, may represent a Pandora's box of pitfalls in consultation. The perspective taken in consultation exerts a strong influence on the expectations of teachers regarding their ability to solve problem behaviors. Within a behavioral perspective, teachers are much more likely to develop expectations of self-efficacy than within a medical perspective (Gresham, 1982). A practitioner need only consider the number of times teachers and parents ask "Do you think there could be something wrong with him?" to realize the insidious nature of a medical perspective. While we cannot ignore possible underlying causation, we must be aware that the medical point of view may preclude effective behavior change through consultation.

Another consultee-oriented consideration is the acceptability of a proposed plan of action. This is particularly important when the behavior change plan has come primarily from consultant input, as the plan may be rejected or a treatment terminated prematurely due to unacceptability. Lahey, McNees, and McNees (1973) reported a case in which satiation of an obscene verbalization associated with Tourette's syndrome was terminated by the teacher who found the procedure very unpleasant.

Kazdin (1980) sought to determine if potential consumers differentiated among treatments on a continuum of acceptability. Subjects completed a 15-item Treatment Evaluation Inventory to assess the acceptability of four treatment alternatives for two different hypothetical cases. Kazdin found that the four treatments examined, a star chart reinforcement system, 10-minute seclusion time-out, drug (Ritilan) treatment, and aversive shock were sharply distinguished in overall acceptability by the undergraduate raters. The treatments were rated in the following order of acceptability (most acceptable): reinforcement, time-out, drug treatment, and shock.

In a second experiment, Kazdin sought to determine the effect of case severity on acceptability ratings. In this study, subjects completed the Treatment Evaluation Inventory for four cases, two with relatively moderate presenting problems (e.g., inattention, non-compliance), and two with more severe presenting problems (e.g., self-injurious behavior). All four treatments were rated as being more acceptable in the severe case than in the moderate cases. The order of acceptability, however, remained the same: reinforcement, time-out, medication, and aversive shock. It is interesting to note that all treatments were rated as more acceptable when the hypothetical cases described "Ralph" than when cases described "Ann".

This study is limited by the small number of treatments considered. However, some general conclusions may have practical importance. The definite hierarchy of preference observed suggests that flexibility in recommending plans is a desirable consultant characteristic. The fact that the order of preference hierarchy did not change in response to problem severity might indicate that while severe problems may seem to call for stronger measures, those stronger measures may not be accepted by consultees.

Derevensky and Rose (1978) studied teacher preferences for various positive reinforcements. The most preferred techniques by teachers in this study centered around positive verbal reinforcement and feedback to children. These were followed by methods of accepting the child's feelings, emotions, and ideas. The two concrete forms or reinforcement used in this study (direct and token) were ranked between seven and eleven out of a possible fourteen by the three groups in the study. The authors contend that traditional "distant reinforcers" are of greatest interest to teachers. Consultants should bear this in mind in the formulation of behavior change plans.

One final consultee perspective to be examined is that consultation might be a punishing event. This has been suggested (Abidin, 1975; King, 1981) as well as the related notion that consultees may not perceive that they will gain more than they will lose as a result of consultation (Anderson, 1981). The idea has even been forwarded that the teacher who successfully develops behavior management skills through consultation may be penalized by the transfer of many problem children to his or her room (Brown, 1972). Abidin (1975) notes that it must be remembered that the consultee's time commitment is not only the time spent with the consultant, but also time required to think about, mentally rehearse, and generally consider new input from the consultant. He also points out that consultant-suggested changes may disrupt an already functioning social system in the classroom and this disruption may be undesirable to the teacher.

Ritter (1978) reported that referrals to a mental health center for consultative services from a K-6 elementary school declined from over 110 in 1969, the year services were initiated, to about 40 in 1975. After taking into account such variables as school staff turnover and changes in school population, Ritter concluded that consultation served to build teacher skills to a level that eliminated the need for many of the referrals. An equally valid conclusion may have been that consultation did not provide expected services or results and referrals declined accordingly. Abidin (1972) recommended three adjustments to consultation in order to minimize the negative effects of consultation. First, the consultee should be prepared for the potential negative consequences. Second, the consultant should project an empathy and understanding of the consultee's situation. And, third, the consultant can try to design programs which reduce the demand on the consultee who must conduct the program.

The research reviewed offers interesting insights and implications for consultation. Much of this research reviewed here took the perspective of the consultee in behavioral consultation. In order to determine the perceptions of working school psychologists regarding consultation, a study was conducted. A questionnaire was distributed to Iowa school psychologists requesting input on a number of consultation variables. The primary focus of this survey was consultee cooperation - methods used to obtain this cooperation, the relative success of these methods, and means of assuring continued cooperation.

Method

Questionnaire

A questionnaire (see Appendix A) was distributed by the Iowa Department of Public Instruction to the supervisors of psychological services of each of Iowa's 15 area education agencies. Supervisors were asked for their cooperation in distributing the questionnaire to the school psychologists in their agencies, collecting the questionnaires, and returning them to the author.

The questionnaire was intended to gather information regarding the number of consultation cases school psychologists handle annually, the success of consultative intervention, the cooperation of consultee groups, and the use and effectiveness of various methods of securing consultee cooperation and methods of following up cases.

Data Handling

Item 1 asked respondents to make an estimate of the number of consultation cases handled annually. In the event that a respondent reported a range of values, the midpoint of the range was used in the analysis of the data.

Items 2, 3, and 4 offered response alternatives from 0 to 100 percent in increments of 20. Some respondents gave values which were intermediate (e.g., 50%). For the sake of tabulating the data, these responses were recorded as the nearest alternative. For example, 15% was recorded as 20%. In the case where the value was exactly halfway between alternatives, the adjacent alternative nearer the median was recorded. The median for item 2 was 80; a value of 50 was, therefore, recorded as 60.

Items 5, 6, 11, 12, 15, and 16 asked that only one alternative be selected. If more than one alternative was selected, results for that item were not recorded for the respondent.

Results

Return Rate

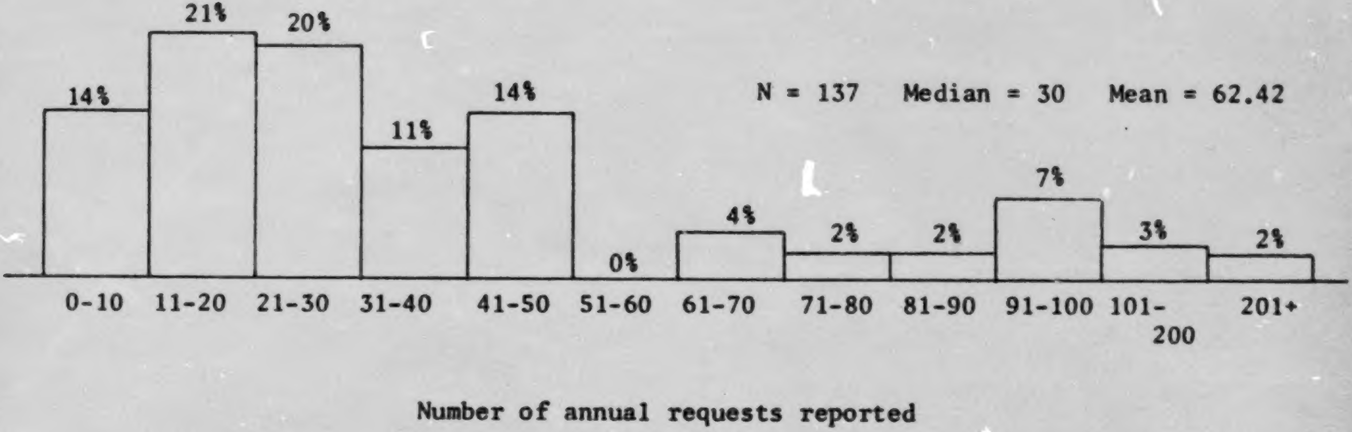
Surveys were received from 143 school psychologists, 41% of the 350 school psychologists working in Iowa.

Item Responses

Item 1. Cases handled annually. Responses to item 1 are summarized in Figure 1. The two measures of central tendency (mean and median) for this item are significantly different from one another. The median value of 30 should be considered the better measure in this case. Eighty percent of the respondents reported 50 requests for recommendations or less. Also, the mean value of 62.42 was affected to a great extent by the data points of a small number of respondents. The seven respondents who reported more than 100 requests for recommendations annually accounted for 45% of the total reported annual requests. One individual reported 2000 requests for recommendation a year!

Figure 1

Annual requests for behavior change plans



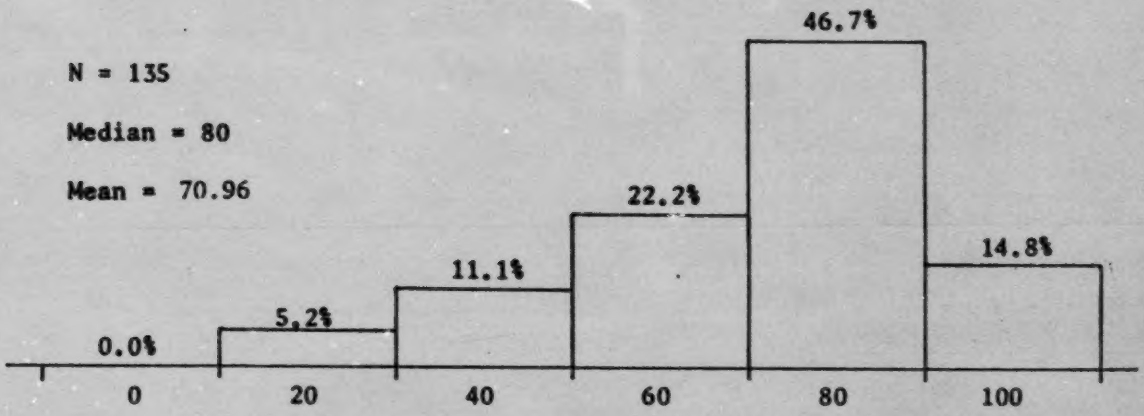
Items 2, 3, and 4. Overall consultee cooperation. Figure 2 presents the results of items 2, 3, and 4. In general, it can be seen that for each succeeding level of consultee commitment (verbal commitment, minimum one day attempt, following plan to conclusion) there is an apparent 20% loss in compliance with a proposed plan.

Items 5, and 6. Cooperation of consultee groups. Results from questions 5 and 6 are shown in Figure 3. An overwhelming majority of respondents (76.6%) indicated that special education teachers, as a group, seem most cooperative in the implementation of recommended behavior change plans. Both parents and regular education teachers were viewed as less cooperative than special education teachers. Thirty-three percent of respondents indicated that parents were less cooperative and 58% responded that regular education teachers were least cooperative of the three groups.

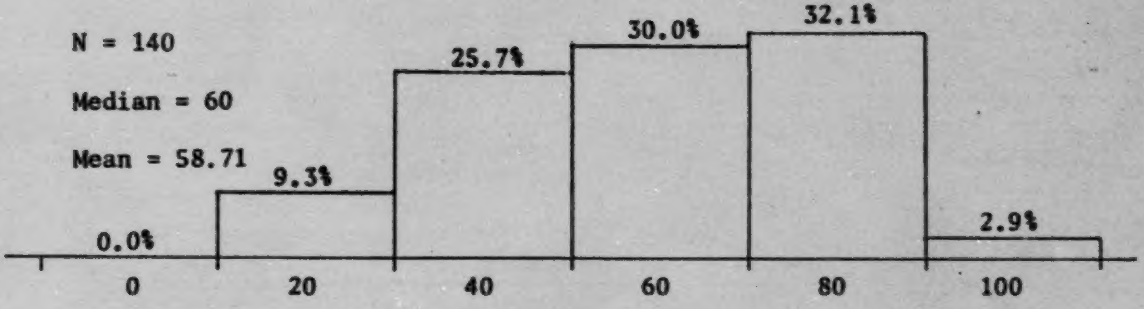
Items 7-12. Use and effectiveness of methods of gaining cooperation. Survey results from questions 7-12 are shown in a series of tables (Tables 1-6). Each item utilized a set of 20 alternative methods of gaining cooperation,

Figure 2

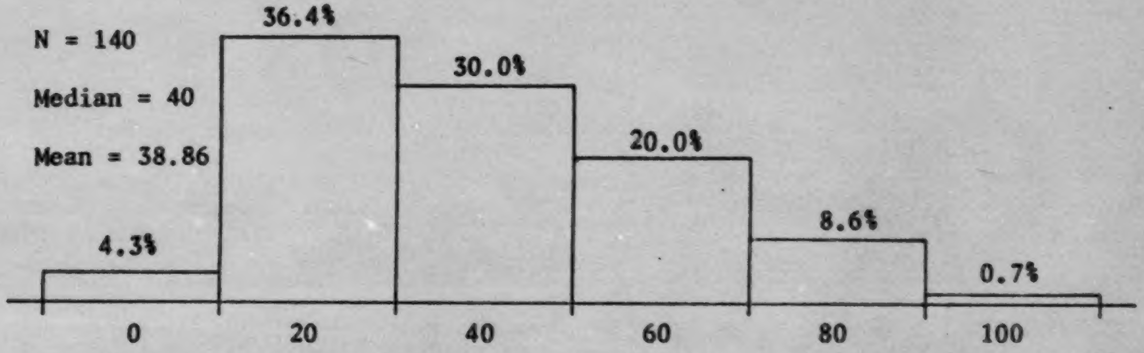
Overall compliance with proposed plans



Verbal commitment to implement plan - percent of cases



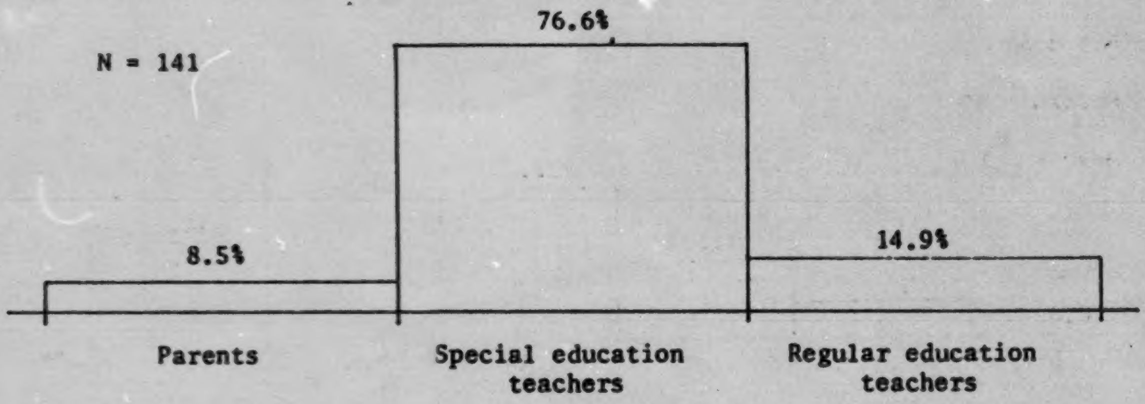
Plans implemented - percent of cases



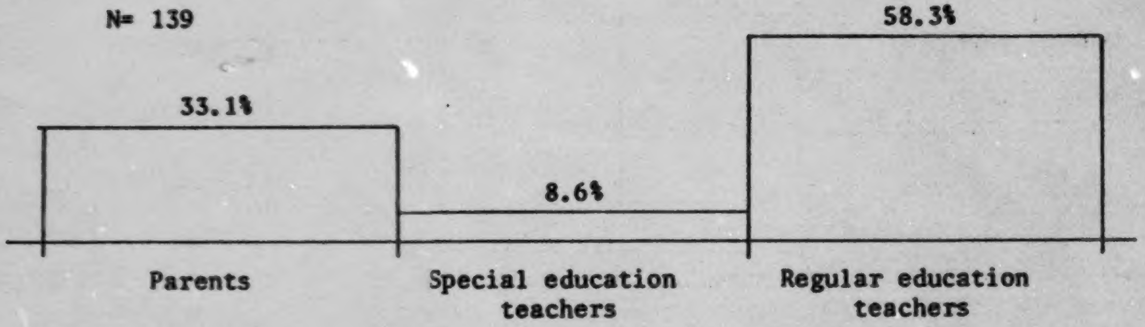
Plans carried through to conclusion - percent of cases

Figure 3

Cooperation of consultee groups



Group implementing plans most often



Group implementing plans least often

and respondents were allowed to add additional methods. For the sake of space, only the six most frequently selected responses to each item are listed. Appendix B does provide complete results for these items, coded by the letters of the 20 alternatives.

Responses to item 7 indicated that all 20 of the alternative methods had been used to secure an initial commitment by some of the respondents, and 16 of the 20 had been attempted by at least 40% of the respondents.

Five alternatives were common to the lists of the six most frequently selected responses for the items dealing with methods attempted, methods which have been successful, methods used most often, and single most effective

Table 1

Methods Attempted to Secure Commitment

The following methods were most frequently chosen.	Percent of Respondents N = 143
Telling the teacher/parent you have seen the plan used successfully (truth).	91%
Providing explicit instructions for carrying out the technique you propose.	87%
Making sure you incorporate teacher/parent ideas in the plan you propose.	85%
Drawing up plans which require a minimum of teacher/parent involvement.	83%
Proposing a variety of plans and having the teacher/parent select from them.	76%
Negotiating to an agreed-upon plan with the parent, teacher, and others involved.	73%

Table 2

Methods Successfully Attempted to Secure Commitment

The following methods were most frequently chosen.	Percent of Respondents N = 142
Making sure you incorporate teacher/parent ideas in the plan you propose.	76%
Providing explicit instructions for carrying out the technique you propose.	76%
Telling the teacher/parent you have seen the plan used successfully (truth).	73%
Drawing up plans which require a minimum of teacher/parent involvement.	67%
Negotiating to an agreed-upon plan with the parent, teacher, and others involved.	57%
Proposing a variety of plans and having the teacher/parent select from them.	52%

Table 3

Methods Unsuccessfully Attempted to Secure Commitment

The following methods were most frequently chosen.	Percent of Respondents N = 121
Providing general instructions for carrying out the technique you propose.	44%
Emphasizing the logic of your plan.	36%
Emphasizing the good of the child i.e., making the parent/teacher feel guilty if they don't try something.	26%
Telling the teacher/parent you have seen the plan used successfully (truth).	26%
Proposing a variety of plans and having the teacher/parent select from them.	26%
Soliciting muscle (getting the principal behind you).	24%

Table 4

Methods Used Most Often to Secure Commitment

The following methods were most frequently chosen.	Percent of Respondents N = 141
Providing explicit instructions for carrying out the technique you propose.	62%
Making sure you incorporate teacher/parent ideas in the plan you propose.	60%
Telling the teacher/parent you have seen the plan used successfully (truth).	57%
Drawing up plans which require a minimum of teacher/parent involvement.	48%
Proposing a variety of plans and having the teacher/parent select from them.	45%
Negotiating to an agreed-upon plan with the parent, teacher, and others involved.	35%

Table 5

Single Most Effective Method of Securing Commitment

The following methods were most frequently chosen.	Percent of Respondents N = 136
Making sure you incorporate teacher/parent ideas in the plan you propose.	25%
Negotiating to an agreed-upon plan with the parent, teacher, and others involved.	20%
Providing explicit instructions for carrying out the technique you propose.	15%
Drawing up plans which require a minimum of teacher/parent involvement.	10%
Modeling the procedure within the classroom or home.	5%
Telling the teacher/parent you have seen the plan used successfully (truth).	4%

Table 6

Single Least Effective Method of Securing Commitment

The following methods were most frequently chosen.	Percent of Respondents N = 136
Being a nuisance.	20%
Pleading.	18%
Whirlwind - getting the teacher/parent to agree before they know what hit them.	13%
Soliciting muscle (getting the principal behind you).	10%
Proposing a variety of plans and having the teacher/parent select from them.	5%
Emphasizing the logic of your plan.	5%

method (items 7, 8, 10, and 11, respectively). Three responses were common to the "top six" lists for items 9 (methods which have been unsuccessful) and 12 (single least effective method).

The relationships among items 7-12 are expressed in correlations in Table 7. Responses to the 20 alternatives for each item were ranked from one (most frequently selected) to 20 (least frequently selected), and the resulting values were correlated for each pairwise combination of items. The absolute values of the coefficients ranged from .06 for the pairing of methods used unsuccessfully and the least successful method to .99 for the pairing of methods attempted and methods used most often.

Table 7

Intercorrelations of Method Use and Effectiveness Items

	1	2	3	4	5	6
1. Attempted		.95**	.45*	.99**	.87**	-.64**
2. Attempted successfully			.22	.96**	.92**	-.75**
3. Attempted unsuccessfully				.35	.19	.06
4. Used most often					.88**	-.69**
5. Single most effective						-.75**
6. Single least effective						

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* $p < .05$

** $p < .01$

The correlations among rankings of methods attempted, methods used successfully, methods used most often, and single most effective method were all .87 or greater. In general, the methods most frequently chosen as being successful were those which psychologists indicated that they used.

Item 13. Accepted strategies. Table 8 summarizes the results of item 13 which asked respondents to list three specific behavior change techniques which teachers or parents had been willing to attempt. Responses tended to be brief ("timeout") and general ("reinforcement"). Techniques were categorized by their major components and tabulated accordingly. Timeout, token systems, monitoring, reinforcement, and contracts were all mentioned by more than 20% of the respondents to this item.

Items 14, 15, and 16. Assurance of implementation. Results from items 14, 15, and 16 are given in Table 9. Respondents were asked to report the

Table 8

Behavior Change Techniques Consultees Have Been Willing to Attempt

Technique	Percent of Respondents N = 132
Timeout	63%
Token systems	30%
Monitoring (no contingency specified)	23%
Reinforcement (unspecified)	22%
Contracts	21%
Home-based systems	12%
Response cost	11%
Specific reinforcement schedules (e.g. DRL)	8%
Extinction/Ignoring	8%
Reinforcement (specified systems)	8%
Praise	6%
Good behavior game	5%
Premack reinforcement	5%
Shaping	5%
Overcorrection	5%

The following were listed by less than 5% of the respondents: Natural or logical consequences, teacher/parent training, stimulus control, cueing, stating rules, role playing, positive practice, mediation essay, cognitive behavior modification, fading, modeling, feedback.

Table 9
Follow-up to Assure Plan Implementation

Item 14 - After obtaining an initial verbal commitment to implement a plan, what methods do you commonly use to assure that the plan is implemented?

Item 15 - Which of the methods listed in number 14 has been most effective for you? (Circle only one.)

Item 16 - Which of the methods listed in number 14 has been least effective? (Circle only one.)

	#14	#15	#16
Direct face-to-face follow-up with the teacher/ parent with observation in the classroom or home.	79%	59%	2%
Direct face-to-face follow-up with the teacher/ parent without observation in the classroom or home.	81%	31%	4%
Direct contact by phone.	74%	2%	22%
Written contacts - letters or notes.	34%	2%	26%
Indirect follow-up through the child, principal, parent who is not the change agent, etc.	68%	3%	47%
Other.	14%	2%	0%
N =	133	130	133

methods they employ to assure plan implementation, the most effective of these methods, and the least effective of these methods. A large majority of respondents indicated they had used all the methods listed except written contracts (34% of respondents). The two face-to-face alternative methods of assuring implementation accounted for 90% of responses to the items asking respondents to indicate the single most effective means. The less direct means (non-face-to-face), conversely, accounted for 95 percent of responses of "least effective."

Item 17. Reasons for not attempting plans. This item asked respondents which of the listed reasons for not attempting their recommended plans they had been given by parents and teachers. Results are presented in Table 10. Each of the listed alternatives were selected by a significant percentage of respondents (over 40%). A common response set for this item was the selection of all the alternatives.

Item 18. Words of wisdom. This item asked respondents for any bits of knowledge or advice, gained through their experiences, that they would be willing to share. Approximately one-third of the returns included responses

Table 10

Reasons Consultants Are Given for Failure to Attempt Plans

Reason	Percent of Respondents N = 141
I tried that and it didn't work.	92%
I don't have the time.	87%
I can't do that for just one child (OR, It's not fair to do that for just one child).	87%
But I already do that.	61%
I guess he/she is not that bad.	49%
You don't really know what it's like, teaching in a classroom/being a parent.	43%
Other.	13%

to this optional question. Responses were rich and varied in their content. A brief summary cannot do justice to the efforts of the respondents, but several "themes" were evident through a number of responses. The notion of developing plans which utilize the consultee's own ideas and suggestions, perceived responsibility, and preferred modes of action was probably the most prominent. Respondents described a nearly cat-and-mouse-like process of eliciting parent and teacher input in the process of arriving at a behavior change plan. Several respondents noted that while this process might result in a plan with less than optimal effectiveness, the gains in cooperation made this worthwhile. The importance of establishing the contributory position of the consultee was made clear by those who emphasized the importance of being reinforcing and supportive of the consultee's previous attempts to deal with the behavioral concern.

A second prominent theme involved means of identifying consultees who will be willing (or unwilling) participants in the consultation process and situations amenable to successful consultation. More than once the potential consultee who "yes, but's" his or her way through consultation contacts was viewed as unlikely to be cooperative. One respondent forwarded a tongue-in-cheek system called the "Wilson Insecurity Scale" for coding teacher verbalizations in order to predict cooperation. Another individual lamented teachers' inability to engage in the consultation relationship and suggested that teacher training programs include instruction in the utilization of support personnel. One respondent felt that the collection (or noncollection) of baseline data was a good predictor of future commitment, while another felt that this initial effort was enough of an inhibitor to further action that the consultant should collect baseline data in order to gain cooperation. Severity of the presenting problem was advanced as a good predictor of effective consultation, as was the assessment of the child within the total social system. Consultees who had positive things to say about the target child or class and those who entered the consultation relationship asking "What can I do?" were seen as likely to be very cooperative.

Other means of establishing and maintaining cooperation were proposed by respondents. Seeking parental and administrative support was suggested. Keeping programs simple and specific was emphasized by a number of respondents. Several foot-in-the-door techniques were advanced. One involved working only with cooperative teachers in the hope that word of successes would influence other less cooperative teachers. Another consisted of securing a small initial consultee effort and gradually increasing the demands on the consultee. One respondent felt that a good method of establishing credibility and cooperation in a school system was to select a small manageable problem to solve. To the contrary, another respondent advised, "Find the worst kid in the school, cure him, and you're set forever". One individual felt that only those programs utilizing a behavior management aide were consistently effective.

Follow-up to assure implementation was stressed many times. Various respondents mentioned such things as providing all materials, praising consultee efforts, committing as much time as possible, and supplementing consultee efforts with direct contact between the consultant and the client as important features in effective follow-up. Follow-up was also seen as involving the warning of consultees of potentially negative consequences of the plan (e.g., extinction burst) and aiding the consultees in working through these problems. Remaining flexible in modifying plans was also seen as important in effective follow-up.

The fact that other time commitments force psychologists into a "hit-and-run" style of consultation was bemoaned by the respondents and the need to quickly seat responsibility with the change agent was stressed. And finally, one respondent voiced a warning to psychologists in all their roles, saying that it is important to know and believe that you cannot change all people's behavior and circumstances, and it is important for the consultant's mental health to realize these limitations.

Discussion

The interpretation of survey data should always be a cautious process. The present study relies on the recollections, approximations, and opinions of its participants. The intent of the author's questions may not have been clear or the questions may have guided a particular response set. It is an unfortunate tendency to accept quantitative data without regard to the quality of the source. In considering the following discussion, the reader should at all times ask, "The algebra works, but what does it mean?".

It would appear that the typical Iowa school psychologist is asked to recommend a behavior change plan about 30 times a year, or approximately once a week. If we observe the median values for the survey items regarding consultee commitment to proposed plans, it seems that a 20% loss in compliance with a plan occurs at each succeeding level of required commitment. Twenty percent of potential consultees fail to verbally commit to a plan. Another 20% fail to attempt a plan despite a verbal commitment. And another 20%

implement plans but do not follow these plans through for sufficient time to determine if the plan is successful or not. Keeping in mind that these values are based on approximations, we might expect the "typical" psychologist to annually receive 30 requests for consultation, work out 24 agreed-upon plans, see 18 of these plans implemented, and 12 of these carried through to a desired behavior change or until it is apparent the plan is unsuccessful.

Attrition from plan implementation occurs for a variety of valid reasons. Children change schools, grades, or teachers; home-situations are altered; and behaviors improve before plan implementation occurs. Even taking these effects into account, the magnitude of the loss of plan compliance reported in this study strongly indicates that consultation effectiveness could be improved. We may not be able to improve on the 80% of consultees who indicate they will attempt a plan, but we must be able to increase from 40% the number of plans which are given a true test.

An energy analogy may be useful. Hydrogen and oxygen, relatively high energy substances, combine to form a compound of lower energy, water. Water can be transformed into hydrogen and oxygen, but because matter tends toward lowest energy, water formation is the "preferred" reaction. Unfortunately, people do not behave in the predictable fashion of atoms. It is not a measurable, real "energy" we need to consider, but rather the consultee's subjective estimation of energy in relation to the severity of the problem which is important. "Energy" in the sense of consultation refers to teacher time and effort expended in ineffective behavior change attempts, vigilance of the problem child or children, subjective discomfort of the consultee caused by undesirable behavior, as well as the energies required by the rest of the class or the rest of the family. The pre-consultation status quo has a certain energy requirement. If consultation does not result in a plan which requires less energy than the status quo, then the likelihood that the plan will be initiated and carried through is diminised. The plan that requires the consultee to become a timer-setting, data-taking, token-counting, head-patting octopus has a very low probability of implementation and maintenance.

Another aspect of the energy analogy is also important. Hydrogen and oxygen do not spontaneously combine to form water. Additional energy (e.g., a spark) is required before the reaction takes place. In consultation, there is also additional energy required before a plan is in place and running smoothly. This additional energy requirement can consist of such elements as time spent in consultation identifying the problem and formulating plans, the acquisition of new skills by the consultee, preparation of materials for the plan, the taking of baseline data, and the energy required to make changes in the existing social system.

Much of the data gathered in the present study can be interpreted in the list of the proposed "energy" perspective. For example, over three-fourths of the respondents indicated that special education teachers implement proposed plans more often than regular education teachers or parents. It is reasonable to assume that special education teachers are better educated in behavioral principles, have used behavioral programs, or have seen behavioral programs used in their training, and are more likely to have a formal behavior management system in place in their classrooms. The "energy" required to modify an already established management system to suit a particular purpose by a person trained in behavioral techniques and accustomed to individualizing programs must be far less than that required by a parent or teacher for whom a formal, individualized plan is a complete change necessitating much new learning.

Four alternatives accounted for 70% of survey respondents' selections of the single most effective means of ensuring consultee cooperation. These were making sure to incorporate consultee ideas in the plan, negotiating to an agreed-upon plan, providing explicit instructions, and drawing up plans which require a minimum of consultee involvement. The first two alternatives are somewhat overlapping and both emphasize consultee input in the devising of behavior change plans. Consultees are more likely to implement a plan when they identify plan tactics themselves (Gresham, 1982). Gresham suggests this may occur because the consultee who offers plan tactics may view himself or herself as being an equal partner in the process, and this may serve to increase the consultee's sense of self-efficacy. An alternate explanation might be that the plan tactics consultees identify are methods they know, have used, and find acceptable. If true, this would reduce the "energy" required of the consultee in instituting a change. Also, the inclusion of "old" consultee behaviors in a plan may serve as Premack reinforcement for the "novel" behaviors required by the plan.

The provision of explicit instruction for a plan reduces the number of decision points required of the consultee. When a clear path of action has been laid out, the consultee does not need to take the time (i.e., energy) to decide on what the implications of a general plan are for the situation immediately at hand. When continually faced with the decision to invest more energy or revert to old, low energy habits, most consultees will eventually revert to old modes of action. The last of the four "most effective" alternatives is drawing up plans that require a minimum of consultee involvement. This is clearly a method which reduces the "energy" required of the consultee.

Almost all of the reasons for not attempting the proposed plans of consultants (Table 10) could be interpreted as meaning that the plan requires too much "energy" in an absolute sense or too much "energy" in relation to the problem. The consultee that says, "I don't have the time," may not. The consultee who states, "I guess he is not that bad," may not mean that the child's problem is not bad in comparison to peers, but is not so bad in relation to the "energy" required by a plan to change behavior.

The respondents' perceptions of the effectiveness of different forms of follow-up may also be viewed in the light of the "energy" perspective. Follow-up contact has been shown to increase plan implementation (White & Fine, 1976). Face-to-face follow-up was overwhelmingly rated as more effective than less direct means by the respondents. We can view face-to-face contacts as being better opportunities to supplement the consultee's "energy" with our own than indirect contacts. Direct follow-up with observation allows the consultant to assess how much "energy" the plan requires in the consultee's particular situation. The author has frequently observed teachers who adopt a plan but fail to eliminate the ineffective methods the plan was meant to replace. Follow-up gives us the opportunity to identify potentially needless expenditures of "energy".

The "energy" perspective is not a theory with great explanatory powers. It is, rather, a broad flexible point of view which may help the practitioner to consult more effectively. The "energy" perspective leads to some important implications for practice.

1. Seek plans which require the least "energy". This seems to be best done by eliciting plans from the consultee. Use your expertise to guide consultee input into an effective plan. While many, if not most, school psychologists have the ability to develop tailor-made plans for consultees to implement, those plans don't do any good in your briefcase.

2. Discourage the consultee from attempting high "energy" plans which will probably not be maintained.

3. Provide as much follow-up contact at the beginning of the program as possible. The "energy" required to change to a new way of doing things is greater than that required to maintain the change.

4. Keep data collection to a minimum. You are not trying to get published, you are only trying to get enough data to determine if the plan is effective. Collect data yourself when possible. Don't ask for continuous data recording when time sampling will do. Use data available in the environment (e.g., attendance records, grade books). The author devised an assignment completion plan with a teacher in which the student "captains" of two teams collected, counted, and recorded assignments turned in.

5. Provide explicit instructions. After arriving at a plan, make sure that you are in complete agreement with the consultee as to the "nuts and bolts" of operation. Try to anticipate potential problems and work out a plan of action to deal with these problems.

6. Seek all possible ways of reducing the response cost of a plan on the consultee. Reinforce consultee efforts.

Many readers will be uncomfortable with the perspective of this chapter. We have been trained to seek the best solutions to problems, not the most acceptable solutions. However, we must consider that a "best" solution will not benefit a child if it is not implemented.

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BEHAVIORAL INTERVENTION COOPERATION SURVEY

School psychologists are frequently called upon to recommend behavior change plans to be carried out by teachers or parents. In the course of providing such services, psychologists are many times frustrated in their attempts to get teachers and parents to implement the plans which are proposed. The purpose of this survey is to determine what methods psychologists use (successfully and unsuccessfully) to ensure implementation of behavior management programs when teachers or parents serve as the primary change agents. Please take a few minutes to complete this survey.

1. Approximately, how many times a year are you asked to recommend a behavior change plan to be carried out by parents or teachers?________

2. How often (in an approximate percentage) are you able to obtain a verbal commitment to carry out your proposed plan? (Circle one.)

   0% 20% 40% 60% 80% 100%

3. Approximately, what percentage of all the behavior change plans you propose are actually implemented (even if only for one day)? (Circle one.)

   0% 20% 40% 60% 80% 100%

4. Approximately, what percentage of all the plans you propose are implemented and carried through (modified or unmodified) until the desired behavior change is accomplished or until you can reasonably conclude that the plan is not effective? (Circle one.)

   0% 20% 40% 60% 80% 100%

NOTE: If all is right with the world, your answer to #2 should be greater than or equal to #3, and #3 should be greater than or equal to #4. Please check.

---

5. Which of the following groups seems to be the most cooperative (i.e. implement your plans most often)? (Circle one.)

   a. parents
   b. special education teachers
   c. regular education teachers

6. Which group seems to be the least cooperative? (Circle one.)

   a. parents
   b. special education teachers
   c. regular education teachers

7. What methods have you used in attempting to secure an initial verbal commitment to implement a behavior change plan? (Circle as many as apply.)

   a b c d e f g h i j k l m n o p q r s t u v w

8. Which of the methods you have used have been successful? (Circle as many as apply.)

   a b c d e f g h i j k l m n o p q r s t u v w

9. Which of the methods you have used have been unsuccessful? (Circle as many as apply.)

   a b c d e f g h i j k l m n o p q r s t u v w

10. Which methods do you use most often? (Circle as many as apply.)

    a b c d e f g h i j k l m n o p q r s t u v w

11. Which method do you feel is the single most effective way to ensure teacher/parent cooperation? (Circle only one.)

    a b c d e f g h i j k l m n o p q r s t u v w

12. Which single method do you feel is the least effective? (Circle only one.)

    a b c d e f g h i j k l m n o p q r s t u v w

13. Please list three specific behavior change techniques (e.g., timeout, good behavior game) which teachers or parents have been willing to attempt. If necessary, please include a brief description.

14. After obtaining an initial verbal commitment to implement a plan, what methods do you commonly use to assure that the plan is implemented? (Circle as many as apply.)

    A. Direct face-to-face follow-up with the teacher/parent with observation in the classroom or home.

    B. Direct face-to-face follow-up with the teacher/parent without observation in the classroom or home.

    C. Direct contact by phone.

    D. Written contacts - letters or notes.

    E. Indirect follow-up through the child, principal, parent who is not the change agent, etc.

    F. Other (please be specific)______________________________

    G. Other____

15. Which of the methods listed in number 14 has been most effective for you? (Circle only one.)

    A B C D E F G

16. Which of the methods listed in number 14 has been least effective? (Circle only one.)

    A B C D E F G

17. Which of the following reasons for not attempting your proposed plan have you been given? (Circle as many as apply.)

    a. I don't have the time.

    b. I guess he's/she's not that bad.

    c. I can't do that for just one child. (OR, It's not fair to do that for just one child.)

    d. You don't really know what it's like, teaching in a classroom/ being a parent.

    e. But I already do that.

    f. I tried that and it didn't work.

    g. Other____

18. (Optional, but please read on.) A brief survey such as this taps very little of the experience and knowledge which Iowa school psychologists possess. I am interested in collecting any "words of wisdom" or "war stories" regarding teacher and parent cooperation in behavioral programming you may be willing to share with colleagues. "Words of wisdom" might address such questions as, "How long do you try to get a plan going before you decide on another option (e.g., counseling)?" or "How do you identify teachers and parents who are willing to try new things and those who are not?" I suspect that your "war stories" will revolve around stinging rejections and serendipitous successes. Please relate any advice or tales that others might learn from.

WHEN YOU HAVE COMPLETED THIS SURVEY, PLEASE RETURN IT TO YOUR SUPERVISOR.

USE THE FOLLOWING ANSWERS FOR QUESTIONS 7, 8, 9, 10, 11, and 12.

a. Telling the teacher/parent you have seen the plan used successfully (truth).

b. Telling the teacher/parent you have seen the plan used successfully (lie).

c. Proposing a variety of plans and having the teacher/parent select from them.

d. Drawing up plans which require a minimum of teacher/parent involvement.

e. Providing references to the teacher/parent which describe a particular technique and its successful application.

f. Modeling the procedure within the classroom/home.

g. Waiting until the teacher/parent is desperate.

h. Soliciting muscle (getting the principal behind you).

i. Attempting to secure a small initial commitment of time or effort from the teacher/parent and gradually securing more time or effort.

j. Emphasizing the logic of your plan.

k. Being a nuisance.

l. Pleading.

m. Emphasizing the good of the child (i.e., making teacher/parent feel guilty if they don't try something).

n. Making sure you incorporate teacher/parent ideas in the plan you propose.

o. Charm and personality.

p. Meeting with the child one-to-one before proposing a plan.

q. Whirlwind - getting the teacher/parent to agree before they know what hit them.

r. Providing explicit instructions for carrying out the technique you propose.

s. Providing general instructions for carrying out the technique you propose.

t. Negotiating to an agreed-upon plan with parent, teacher, and others involved.

* u. Other (Please be specific)____________________

* v. Other____________________

* w. Other____________________

* If you fill in "other", i.e., items u, v or w, then return this sheet with the other parts of this survey.

Appendix B

Results From Survey Items 7-12

	Item 7		Item 8		Item 9		Item 10		Item 11		Item 12	
Response	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank	N	Rank
A	130	1	104	3	32	3.5	80	3	5	6	3	11
B	27	18	17	17	14	20	6	18	0	18	7	6
C	108	5	74	6	31	5	55	5	3	7.5	7	6
D	118	4	95	4	27	8	68	4	13	4	2	14
E	61	15	28	16	27	8	11	15	0	18	6	9
F	66	12	51	9	16	19	28	11	7	5	1	17
G	62	14	40	13	20	14.5	14	14	2	11.5	2	14
H	59	16	36	14	29	6	7	16.5	2	11.5	14	4
I	83	10	54	8	24	10	33	10	2	11.5	2	14
J	103	7	47	11	44	2	34	8.5	3	7.5	7	6
K	28	17	12	18	22	13	7	16.5	0	18	27	1
L	10	20	2	20	17	18	2	19.5	0	18	25	2
M	63	13	32	15	32	3.5	18	13	1	15	2	14
N	122	3	108	1.5	20	14.5	84	2	34	1	0	19
O	77	11	48	10	27	8	27	12	2	11.5	6	9
P	99	9	73	7	19	16.5	48	7	2	11.5	2	14
Q	22	19	10	19	19	16.5	2	19.5	0	18	17	3
R	125	2	108	1.5	23	11.5	87	1	21	3	0	19
S	100	8	45	12	53	1	34	8.5	2	11.5	6	9
T	104	6	81	5	23	11.5	49	6	27	2	0	19
N=	143		132		121		141		136		136	

Helping Children Cope with Parental Problems

Marcia B. Shaffer

Abstract: This article addresses some of the aversive home situations which lead children to failure in educational pursuits and in social adjustment. Suggestions are made to help school psychologists help children live more successfully with their family conditions. The suggestions include lessons learned by the author over three decades of experience as a practicing school psychologist

CHAPTER OUTLINE

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"Children and their grandparents should be good friends; they share a common enemy." That acerb remark, or a reasonable facsimile, has been attributed to Haim Ginott, who was by most standards a man of peace. "Enemy" is a strong word; but it does seem that the relationships of parents and children, like most human affiliations, are fraught with stresses and strains as well as pleasures. To add to the tensions, these are relationships in which neither party has a choice. Beyond the option, not always exercised, of whether or not to produce progeny, parents have to take what they get. Children are in an even worse predicament. Their preferences are almost never taken into account. They live where their parents live. Their friends must come from the neighborhood or the local school or the children of their parents' friends. They live as their parents live. Whether a mother's or father's cooking is edible or not, nutritious or not; the housekeeping impeccable or indifferent, clothing clean or begrimed, children have to accept the conditions set by parents. Nor are the rules and regulations ordinarily subject to a referendum by children.

The immurement of children is not news, but it is an important point for school psychologists to bear in mind, especially in helping teenagers, who often react vehemently against what they perceive as the rigidity and unfairness of their parents. Recognition that they are, indeed, "prisoners," but that their sentences are not eternal, is sometimes the key to communication and a considerable asset in persuading them to accept their temporary fate.

It is this immanent restrictiveness of families which sets the stage for the truly monumental problems of parents with which children must cope: alcoholism, abuse, and sexual assault.

Identification

School psychologists, as a part of their professional scope, are concerned with children who are trapped in homes with parents who suffer from one or more of these proclivities. The question is how to find them. Do they demonstrate traits or behavior which distinguishes them? Are there scarlet As to tell us that their parents are alcoholics or abusers? No.

Of children whose parents are alcoholics, Hindman (1975/1976) has written: "These youngsters have a poor self-concept, are easily frustrated, often perform poorly in school, and are more likely than their peers to suffer from adjustment problems, particularly in adolescence" (p. 2). In a survey of 45 school nurses, Triplett and Arneson (1978) garnered 219 behavioral "symptoms" which precipitated the nurses' awareness of alcoholism among parents. These included poor physical care or appearance, multiple minor illnesses or complaints, poor scholastic achievement, frequent absences and poor peer relationships. Abused children, according to Soeffing (1975), may be aggressive, disruptive, shy, withdrawn, passive, or overly compliant" (p. 130). Sanders, Kibby, Creaghan and Tyrrel (1975) report that children who live with abuse develop "self-protective, fearful behaviors" (p. 335). Signs of sexual abuse are variously said to include increase in physical complaints, attention-getting behavior, suicide attempts, poor self-image, truancy, and drop in academic performance. In short, whatever their parents' shortcomings, any of these children may run the entire gamut of symptoms which adumbrate a troubled existence. There does not seem to be any observable syndrome which can precisely differentiate the child of alcoholic parents from the abused child from the sexually molested. The same symptoms may indicate any number of other affective disturbances. All that we can safely say is that these young people demonstrate, in one way or another, emotional distress. While it may sometimes be necessary, for legal reasons, to call them "emotionally disturbed," distress seems more apposite, since they are reacting normally to adverse environments. Perhaps their most distinctive characteristic is that, one and all, they are reputed to be lacking in faith in adults, certainly a predictable reaction, and of inestimable significance in any attempts to relate to them. Trust must be earned.

Sitting in an office waiting for the world to realize how well school psychologists deal with extreme family situations will not uncover young people with abusive or drunken parents, but the regular referral system will spotlight some. Listening to faculty talk, interpreting community gossip, will turn up others. Encouraging self-referrals will reveal still more. The single most important element in discovering them is the obvious availability of the school psychologist to help emotionally troubled students. Once at work with any disturbed child, it is vital to be alert to signs of severe, specific parental problems.

Alcoholism

Alcoholic parents, according to experts, do not willfully neglect their children. The problem of alcohol is so overwhelming to both the alcoholic and his/her spouse, that children are often ignored amid the chaotic emotions which invade the family. Deliberate or not, the results to children and young people of excessive comsumption of alcohol by one or both parents can be devastating.

Children themselves report many difficulties which they perceive as related to parental alcoholism. In a study of 113 children, Triplett and Arneson (1978) found that more than 50% of them listed as effects of their parents' drinking: damaged relationships, inside and outside the family; fear of the future; fear of being different; lack of self-confidence; and decreased competence in their schoolwork. Further, children of alcoholics may feel that they are to blame for their parents' drinking; fear for the alcoholics' safety; be confused by the difference between sober and drunken behavior; and experience almost continuous tension and shame (Morehouse, 1979). They need therapy which permits release of these feelings; they also need to discuss such matters as how to explain their parents' weaknesses to their friends, how to handle conflicting parental demands, and even how to prepare themselves for accepting assistance from community facilities.

Granted the limitations of this writer's access to the literature, it remains something of a mystery that school psychologists are not mentioned as sources of aid to children of alcoholic parents. School nurses, school social workers, teachers are adjured to build children's self-confidence, offer supportive relationships, and even counsel. One report suggested that, to help children cope with alcoholic parents, "it was concluded that the school staff, who have close, continuous contact would be the best and most accessible caregiving team" (Cramer, 1977, abstract). The "team," Cramer continues, should include teacher, counselor, nurse, and social worker; complex, long-term "treatment" was recommended as the task of the team.

While short-term counseling, by appropriately trained school personnel, seems feasible, the recommendation that they should become deeply and lengthily embroiled in treatment is an unseemly burden to place on educational institutions. Although social agencies may be scarce, they are still the preferred resources for problems arising from alcohol.

In addition to family services and mental health clinics, the spin-offs from Alcoholics Anonymous appear to be successful in these situations. One study (Hughes, 1977) reported that "children of alcoholic parents who are members of Alateen are better off (sic) than those who are not" (p. 47). For preteenagers, there is a group called Ala-Tot. Big Brothers and Big Sister groups are also well respected. It is generally agreed that, even if parents do not involve themselves, such organizations as Alateen can help young people to greater self-understanding and more comfortable relationships.

Abuse

Child neglect and abuse are not newly-emerging social issues. At the outset of the twentieth century there existed the Humane Society, i.e., the Society for Prevention of Cruelty to Children and Animals, which later split into the SPCC and the SPCA. Fifty years ago, SPCC workers wore badges, and entered homes much as policemen might. Currently, some child protective agencies retain the right to remove children from their parents summarily, if home conditions and the degree of neglect/abuse appear to be endangering children's lives. But in its long history, child abuse has never elicited such public concern as it does today. It is far more prominently featured in journals, magazines, and newspapers than it was a generation ago. The school psychologist has no choice but to be a part of this public solicitude.

For our purposes, popular definitions of neglect and abuse will suffice. Abuse involves physical cruelty: beatings, burnings, sexual assault. Neglect is deprivation: insufficient food, insufficient clothing and/or housing, insufficient physical or emotional care.

With the advent of greater freedom in the discussion and pursuit of sexuality in our society, sexual abuse of children has been drawn from the closet. It has as many symptoms as are included in the entire litany of signs of emotional disturbance. Perhaps the most distinctive sign, according to the literature, is assumption of an unusual amount of household responsibility, including care of siblings. The most common symptoms are said to be depression and withdrawal from social relationships with peers. Other than to mention these recorded indications of its existence, this paper will assume that the intervention in any form of abuse, sexual or not, should follow similar lines.

From the viewpoint of the school psychologist, it is important to remember that "abused children must cope with the traits of abusive parents: unpredictability, social isolation, messages of lack of value, role reversal, and absence of modeling of pleasurable social interaction" (Martin, 1977, p. 1). This means that these youngsters do not know any typical human relationships. They are likely to see themselves as uniquely mistreated (Herzberger, Polts, & Dillon, 1981), but they cannot really comprehend the unusual quality of their family ties. Some of them believe that they deserve the punishment which their parents dole out to them. The school psychologist may need to treat himself to a complete change of intellectual venue when dealing with them.

There are families in which all of the children are abused. There are others in which one child is the major victim. According to experts, children with "cognitive, neurological, and birth defects--handicapped children--are especially 'at risk' for maltreatment, primarily because of the discrepancy in child behavior and parent expectations and increased stress on the family" (Richey, 1980, p. 334). Conversely, the abused child is at increased risk of learning disabilities (Martin, 1977), "retardation, emotional disturbance, physical defects, neurologic problems, and growth failure" (Soeffing, 1975, p. 128), which occur as a result of the beatings he receives.

The literature on child abuse is fascinating, full of bits of theory in explication of this degrading, damaging phenomenon. In the advancement of amelioration, writers suggest everything from PTA programs (to acquaint the community with legal procedures in abuse cases) through sex education courses, to tender loving care from teachers. Again, much of the onus is placed on the schools to prevent or eliminate the problem. Again, school psychologists do not play a prominent role in the minds of the experts. The reader who wishes to immerse himself in the prevention, detection and cure of abuse will find a host of references in a public library. The writer will limit this discussion to denouncing some current practices, a stricture which she hopes will not be misunderstood.

By now, nearly every state has a law covering the reporting of child abuse, even suspected abuse. It has become fashionable to suspect abuse; it is a dangerous avocation. One school principal of my acquaintance was reported as a child abuser by a vindictive neighbor. Schools are not immune to jumping on this bandwagon.

The Superintendent of Documents, U.S. Government, will provide three pamphlets on child abuse and neglect, at $1.90 each. Much of the information is sound and useful, but there are a few remarks of unadulterated inanity. "Bear in mind that reporting does not stigmatize a parent as 'evil'" (Vol. 2, p. 71); "If you report a borderline case in good faith, do not feel guilty or upset if it is dismissed as unfounded, upon investigation" (Ibid.). This bearer of solace also advises teachers to "give the (abused) child additional attention, and be warm and loving." Such propaganda is pure balderdash. Of course the parent will be stigmatized; of course you will feel guilty; warmth and love are a nasty contrast to the child's parents and probably unacceptable to the child in any case.

Then there are the agencies which respond to cases of abuse. Their procedures can be downright frightening. Let me cite one example: a 13-year-old boy and his mother summoned their courage to report, through the school staff, a brutal stepfather. The social agency serving that geographical area sent a callow social worker to investigate. He dutifully recorded their story in triplicate, said that it would take six weeks to obtain some sort of writ, and sent them home to the culprit, who had already got wind of their perfidy through the village grapevine.

The writer's personal suggestions as to how to treat abuse cases are mildly illegal, and are not set forth as the best of all solutions. They may at least start a train of thought in some clever, and even more diplomatic, school psychologist.

> Each school should have a written policy on the handling of abuse, real or suspected. The policy should inform the entire staff, including aides and maintenance people, of the laws, and of the steps to be taken by anyone who must report child abuse. The policy should emphasize that this is not a topic for ubiquitous conversation. Hopefully, writing the rules will decrease the amount of extraneous activity which seems to accompany the very hint of abuse.
>
> There should be an intermediate step between discovery and notification of authorities. Someone should talk with the child and one of the parents. This does not guarantee getting at the truth, but it does warn the parent, which seems only fair.
>
> ONE person in the school should be designated to report ALL cases. The school nurse seems the logical, but not the necessary, choice. The school psychologist should avoid this task if possible, because it may damage his chances of working with parents or child at another time. Having a single person make the legal contacts provides a modicum of impersonality and impartiality.
>
> Written into the school policy should be directives regarding follow-up. It is important to try to establish friendly relationships with the social agencies assigned to abuse cases. It is just as important, even at the risk of engendering antagonism, to insist upon immediate action, to protect the vulnerable child and/or parent from further and perhaps lethal harm. Follow-up reports should be required by the school as a condition of the notification.

Child abuse is not the exclusive province of the school psychologist. It is one situation in which it behooves us to join forces with school nurses, school social workers, and guidance counselors to put some sense into the school's role in these pernicious scenarios played out in too many American homes.

Everyday Problems of Everyday Parents

"All children have problems; all children have parents" (Siegel, M., 1982). The situations we have described in the previous paragraphs are dramatic. Most of the time, unless blessed--or cursed--with an extraordinary practice, the school psychologist encounters few of these instances, but many children whose struggles with parents are far less severe, but not to be disregarded. Some of these latter are "natural," inherent in children's development.

Parents with Problems

The school-age child, the 6 to 12-year-old, normally takes a considerable interest in the conversations, the customs, and the characteristics of adults, albeit in a semi-detached manner. He* may distort what he sees and hears. From the time he realizes that some of the things that "go bump in the night" are parents, there are adult doings which he only partially understands. These he interprets according to his own limited experience. One six-year-old boy, referred to me by a worried teacher and a perplexed stepmother, had seen his father administer artificial respiration to his natural mother. When the natural mother died shortly thereafter, the little boy thought that his father had killed her. He could not trust his father nor dare to love his stepmother. That example is extreme; but children's misperceptions are a major consideration for school psychologists.

During the years of pre-adolescence, as he becomes immersed in the disordered, neurotic stage in which his personality "breaks up" to rearrange itself for encroaching adulthood (Redl), the child's problem is reversed. Now his parents fail to understand him. They expect increasing maturity; actually, he seems to oscillate between the antics of a pre-schooler and the inflexible morality of a prudish adult, with moods and behavior as unpredictable to himself as to his parents. He needs strength and structure from them. Rarely do they recognize that need.

Having survived that parlous time, our young hero emerges into the "sturm und drang" of adolescence. Again, his natural progress causes difficulties. Both he and his parents are ambivalent about his moves toward independence (Stone & Church, 1973). "The areas of contention, complaint, and dissatisfaction which are...normatively experienced...e.g., disagreements between parents and adolescents regarding clothes, hair style, curfew, friends...represent and concretize struggles over emancipation and autonomy" (Siegel, O., 1982, p. 543). Add to this the adolescent's innate emotional intensity, and, in many teenagers, a curiously obsessive feeling of responsibility for what happens to one or another of his progenitors and an odd sibling or two. If you counsel many teenagers, you will discover that the problems of the parents are exaggerated, exacerbated, and occasionally apocryphal. They will tell you about these problems to shock you, to test you, to goad you into ridiculous behavior; and almost always they are genuinely concerned about their families. It is hard, even for them, to distinguish the facts from the fantasies.

Times without number, I have listened as high school students railed against their parents; their draconian rules; their penurious ways; their terrible tempers; their terrible quarrels; their drunkenness; their peculiar ethnic customs; their denigration of a beloved brother or sister. Times without number, I have expected monsters, and met mice--or at least well-intentioned middle class men or women, unaware of the gargantuan faults attributed to them by their offspring. There are, of course, parents who really do quarrel constantly, who traduce their children, who are irresponsible, and so on. But it is wise to move slowly, to investigate the reality of any given family.

*The masculine pronoun is used because "he/she," repeated ad nauseam, seems clumsy; and because 80% of my referrals have been and still are boys, who are probably the most ill-treated minority in our culture.

Then there are the "problem parents" whose behavior occurs too often in our society to be called abnormal. Its motivation may not be conscious, although its effects are real enough. There is the seductive mother, who flirts with the friends of her teenage son--and maybe with him. There is the macho dad who wants his artistic son to be a wrestler. There are mothers who adore cute toddlers, but cannot bear pimply, gangly daughters who force them to face their waning youth. There are fathers who are too busy to attend to their children. There are parents who are too weak or too frightened to establish the supportive rules which adolescents crave. There are parents who baby and pamper too much. They are likely to appear, in some combination, in the family of any "problem" teenager you see.

There are still other parent-child problems with which most school psychologists are familiar.

There is the "chip off the old block":

> A small boy is forever in trouble in school because he uses his classmates as punching bags and does not obey the teacher. His response to positive reinforcement is increased impertinence; to negative reinforcement, physical and verbal defiance. You, the school psychologist, ask the parents to meet with you. Presto! In comes Daddy, his contumacy as palpable as his son's.

There is the bearer of malicious tidings:

> A kindergartner whom I recently met was filled to overflowing with the story of a beating his mother had given him. With twinkling eyes and an urchin's grin, he told his teacher, he told the speech therapist, he told me, he told everyone, friend or foe. It wasn't true. He was just making trouble for his mother.

And the "cover-upper:"

> In one case, I heard for two years, in weekly sessions, about the marital, financial, and social mistakes of the parents of a teenage boy, and the blight they had put on his life. Finally, sometime at the beginning of the third year, he told me what he had meant to discuss in the first place: that he had had a transitory homosexual attachment, that he was full of guilt, and that he feared he was abnormal or insane or both.

Sometimes what appear to be parental problems are not. I recall, for instance, one high school student whose mother was alleged, by his teachers through the grades, to be "over-protective." Actually, although it was not obvious, her son was neurologically damaged to the extent that he could not remember how to travel through town alone; his vision was so poor that he could not see to cross the street safely. His mother's protectiveness was a necessity.

The moral of these stories is clear: do not jump to any conclusions.

Conclusion

Confronted with such an incredible continuum of adverse circumstances with which children must contend, what can the school psychologist do? The ensuing philosophy is based on nearly 30 years of experience, and on the lessons learned through more mistakes than I care to admit.

The first step is knowledge. If your training has not included theories of development, of personality, of abnormal psychology, do some reading or take some courses. Biased by my old-fashioned clinical training, I do not believe that a school psychologist can function competently without a broad theoretical background in human motivation and emotional patterns.

Armed with knowledge, proceed to the understanding of each individual situation. Be careful. Do not misinterpret or overinterpret. Be sure that you are reacting to other people's perceptions, not just your own. Bear in mind that the significance of behavior differs from one culture and one geographical area to another. Listen and listen and listen. Fit in any theoretical pieces which seem germane. These are the puzzles which make school psychology so fascinating.

On occasion, as with alcoholism and abuse, professional issues and social issues are synonymous. Then the school psychologist must exercise the nicest of judgement, to assure that righteous, humane wrath does not interfere with professional procedures. Not only oneself, but faculty colleagues must be cautioned against overzealousness. Professional interest is not always pristine. Suspected sexual abuse, in particular, can too be satisfying to the prurient tendencies in the best of us.

Do not try to "treat" severe parental problems. Search out social agencies and psychotherapists in your neighborhood. Refer to them. Without such facilities, try a hospital or a physician or a clergyman. If this inhibition on treatment offends your belief in the depth and breadth of your role, remember that (1) schools cannot accept every burden or correct every ill of society, and (2) it is possible for a school psychologist to know too many family secrets.

Do not announce yourself as a child advocate, though in your heart you may be one. Parents need support, too. The skillful school psychologist is everyone's advocate.

With parental problems of a size and shape suited to your talents and your professional allegiance, begin by attempting explanations to the involved adults. Teachers will often be of assistance to students if they know what troubles them. Parents may, if they can comprehend what is occurring in the minds and hearts of their progeny, alter home conditions to alleviate the problems. (With teenagers, be certain that they give their permission for you to confer with their parents, and that they know what you are planning to say.)

Failing parental cooperation, the school psychologist may be the only resource available. School psychologists of various persuasions will choose varied approaches: behavior shaping, behavior modification, relaxation, even hypnosis. Some will elect to work on such symptoms as social maladjustment or academic failure. Potential strategies abound (Millman, Schaefer, & Cohen, 1980). My personal method is to be part parent, part counselor, part friend, and always a buffer between the young person and the outside world. Recently, I heard a psychotherapist describe a "new" procedure which he calls "Nurturant Authoritative Psychotherapy." That's it. For years, I have been surreptitious about my therapeutic ways; now someone has used the same methods, given them a respectable name, and I'm an honest woman.

If you opt for counseling, be prepared to risk expressing your own values and standards. Many troubled children and adolescents lack rules by which to gauge their behavior. They do not have to live as you live, but they may need to borrow your beliefs to use as a backstop for their thinking.

If the reader has been hoping for an easily-applied formula for helping children cope with parental problems, I am sorry to disappoint. Most of these cases defy measurement, and, at best, lend themselves only to continued evaluation and rearrangement. Often, solutions emerge by afflatus rather than assessment. Sometimes it is necessary to walk through four years of high school with an unhappy teenager. Whatever your procedural choice, do not expect miracle cures or perfect endings.

Finally, a word of advice from one who is intimately acquainted with over-involvement. Remember your place; you work for a school. Schools are for learning. Your job is not to remove every obstacle in students' lives. It is to get those troubled kids through school.

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Issues in Counseling the "Homosexual" Adolescent

Gary Ross-Reynolds

Abstract: Controversies surrounding the causes and treatment of homosexuality are examined. Evidence supporting the disease model is lacking and therapies aimed at conversion from homosexuality to heterosexuality reflect societal values and are minimally effective. Issues relevant to counseling adolescents are examined with the development of a positive self-identity being the overriding consideration. School psychologists must take care neither to encourage nor discourage either a homosexual or a heterosexual orientation but to support and guide adolescents as they work through their conflicts.

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Gary Ross-Reynolds

Introduction

Homosexuality has probably been extant since the very beginning of the human race, and its presence has been recorded since ancient times. In spite of the current social opprobrium surrounding homosexuality in our society, Western civilization has not always viewed homosexual practices unkindly, and many societies are today much more tolerant than ours. Interestingly, there is no established relationship between the prevalence of homosexuality in a given society and society's attitude toward homosexual behavior.

Myths surrounding homosexuality notwithstanding, homosexuals are by and large no different from their heterosexual counterparts. They come from all races, ethnic groups, and social classes. Like heterosexuals, some are poorly adjusted and some are remarkably well adjusted; most suffer from the minor neuroses and insecurities that afflict us all. They are welders, teachers, business people, firefighters, artists, physicians, psychologists, and electricians. They may be married with children or single. They aspire to typical middle-class goals of a home in the suburbs and a good job with the accompanying creature comforts their incomes make possible. They are republicans and democrats, conservative and liberal, Catholic, Protestant, Jew, and non-Christian. They have the same interests and worries as heterosexuals and like heterosexuals seek happiness and someone with whom to share their hopes, fears, ambitions, joys and sorrows.

When confronted with adolescents concerned about their sexual orientation, school psychologists are also immediately confronted with their own beliefs, attitudes, and biases about homosexuality. As for everyone else, these conceptualizations have been forged in the flames of antihomosexual teachings from a disapproving society. Our professional status neither grants automatic immunity from prejudice nor bestows objectivity and rationality, and there are few other issues school psychologists will be called upon to deal with that arouse as much passion as does homosexuality.

In order to effectively counsel an adolescent experiencing conflict over sex-object preference, school psychologists need a broad knowledge base. Therefore the following paper briefly highlights major issues in the field of homosexuality including prevalence, definition, impact of parent-child relationships, the concepts of mental illness, and the effectiveness and ethics of conversion therapy. Next considerations for counseling the adolescent are addressed which focus on the formation of a positive self-identity. Problems in differentiating homosexuality and heterosexuality are highlighted. For the adolescent developing an identity as a gay person, the forces which collectively conspire to make the task so difficult including the absence of positive models, homophobic attitudes of society, and the stigma society places on homosexuality are discussed. Finally considerations in counseling parents and the dangers of maintaining an accepting position toward homosexuality are mentioned.

If, as a result of reading this paper, the school psychologist approaches a potentially homosexual client with increased knowledge of the issues involved, a deeper appreciation of the struggles encountered, and a less judgmental attitude about the rightness or wrongness of a homosexual orientation, then the author's purposes will have been accomplished. If school psychologists can approach sexually-conflicted clients with openness, personal comfort, and nonjudgmentalism, the vagaries of counseling will take care of themselves.

Background and Considerations

Prevalence

The number of homosexual individuals is impossible to determine due to the pervasive negative social and legal status homosexuality enjoys in our society. The Gay Liberation Movement notwithstanding, unknown numbers of homosexuals still lead closeted lives, the majority, perhaps shielded from suspicion by marriage. The validity of epidemiological studies must always remain suspect, and many writers assume that reported figures are low (Brown, 1975; Kinsey, Pomeroy, & Martin, 1948; Kremer, Zimpfer & Wiggers, 1975).

The estimated number of homosexual persons residing in the United States range from three to four million (National Institute of Mental Health, 1969) to 20 million (Voeller, 1980). Marmor (1980c) estimates that 5 to 10% of adult males and 3 to 5% of adult females in Western culture are exclusively homosexual, with the prevalence at least doubling if bisexual individuals are included. He bases this estimate on a number of studies both pre-and post-dating the still highly regarded (Marmor, 1980c; Newton & Risch, 1981) Kinsey study, all of which yielded similar results.

Kinsey et al., (1948) estimated that 25% of American men have more than incidential homosexual experience for at least three years between the ages of 16 and 55, that 10% are predominantly homosexual for at least three years and 4% remain so throughout their lives, and that the number of males achieving orgasm at least once with another male at some time after the onset of adolescence was "at least 37%" (p. 623). Further, Kinsey, et al. (1948) reported that 27% of males have homosexual experiences between the onset of adolescence and age 15, and 60% of the preadolescent boys who contributed histories reported homosexual activities. These data are consistent with the more recent findings of Pillard (1974) who reported an incidence of 35% for males under age 19 and Saghir and Robins (1973) who reported that 23% of their heterosexual population engaged in homosexual masturbation prior to age 15. For adolescent females the prevalence, ranging between 2 and 6%, is much lower than for males (Diepold & Young, 1979). Thus, in a high school with 500 male students, as many as 185 may reasonably be expected to have experienced at least one homosexual act during adolescence resulting in orgasm. Excluded from this figure are unknown numbers of students who have homosexual feelings and fantasies on which they have not acted.

Definition

Unfortunately the terms "homosexual" and "homosexuality" are used indiscriminately both in the professional literature and in daily discourse. Is the individual who has a single orgasm with a partner of the same sex homosexual? Is a man who performs fellatio or the passive partner in anal intercourse homosexual? How about the recipient of fellatio or the active partner in anal intercourse? Is the man who does not engage in overt homosexual behavior but has erotic desires and fantasies of sexual relations with other men homosexual? Are two men who care deeply for each other and are affectionate with each other but do not engage in sexual activity homosexual? Is the answer the same for two women? What about two men who have no affectional ties whatsoever who engage in genital interactions? Are men who turn to same sex activity only in the absence of available females homosexual? Is the man strongly indentified with the stereotypically masculine sex role who engages in periodic same-sex escapades homosexual? What about his effeminate counterpart? How is the adolescent who engages in mutual masturbation to be classified? And what about the man who ceases to engage in same-sex activities after four years of active bar cruising? It is highly likely that given a group of 10 people, lay or professional, they would disagree on each of the questions posed above.

First of all, the preceding questions illustrate the fact that homosexuality is not an all-or-nothing phenomenon. Nor can it be defined in strictly behavioral terms. Money and Ehrhardt (1972) assert that "all discussions of homosexuality become wasteful word games, unless, at the onset, a differentiation is established between homosexuality defined as a sexual act, versus homosexuality defined, by inference, as a permanent state of erotic disposition and preference" (p. 228). Kinsey et al., (1948) recognized this dichotomy by classifying individuals on a unidimensional bipolar continuum from zero (exclusively heterosexual) to six (exclusively homosexual) based on both psychosexual reactions and overt experience. More recently Storms (1978, 1980), arguing that homoerotic and heteroerotic orientations can vary independently of each other, promulgated a two dimensional model of sexual orientation resulting in four sexual orientation categories: asexual, heterosexual, homosexual, and bisexual.

Obviously, as the preceding questions illustrate and Kinsey, et al. (1948) have amply demonstrated, the categories "homosexual" and "heterosexual" are far from tidy, or as Kinsey and his colleagues put it, "the world is not to be divided into sheep and goats" (p. 639).

Kremer, et al. (1975) and Sorensen (1972) attempt to extricate themselves from the confusion by thinking in terms of homosexual behavior defined simply as behavior that "occurs when people of the same sex seek sexual stimulation or satisfaction with each other" (Kremer, et al., 1975, p. 96). While the authors feel that such an approach better serves a counselor and client than do rigid dichotomies, Jones (1978) cautions that a behavioral conceptualization of homosexuality may reinforce a behavior change oriented treatment approach if homosexuality is assumed to be basically undesirable.

Saghir and Robins (1980) and Marmor (1980c) define homosexuality as a phenomenon originating in early childhood characterized by emotional attachments and erotic fantasies directed to individuals of the same sex. The developing psychological responsiveness usually, but not necessarily culminates in overt sexual expression and does not preclude heterosexual arousal.

If by this time you, the reader, are confused, you are getting the picture. Allow me to confuse you further still. Many individuals to whom the term "homosexual" is applied object to this appelation because of its negative connotations (Woodman & Lenna, 1980) as well as its emphasis on sexual acts (Norton, 1976). They prefer instead the term "gay" (Clark, 1977; Morin, 1977; Morin & Schultz, 1978; Warren, 1974) which connotes emotional, spiritual, intellectual, and affectional involvement with members of the same sex, not just sexual. The term "gay" is to the term "homosexual" as "Black" is to "Negro" or "Chicano" is to "Spanish American." As Morin and Schultz (1978) assert, "gay is proud, angry, open, visible, political, healthy, and all the positive things that homosexual is not" (p. 139). Weinberg (1973) distinguishes gay from homosexual, reserving the former designation for individuals who have rejected society's negative stereotypes associated with the latter term. Gay is healthy, homosexual is not since the gay person has developed a positive self identity while the homosexual individual claims as his own many of non-gay society's negative attributes about homosexuals. Gay, according to Weinberg, is to be free of shame, guilt, or regret over one's homosexuality. "To be gay is to view one's sexuality as the healthy heterosexual views his" (p. 70).

The power of these labels and the importance they have for an individual's self perception are of more than academic interest as illustrated by Alex's experiences in rural Connecticut.

> "I did not see the word homosexual or hear it spoken until I was sixteen, my sophomore year in high school, when I read a book that had a chapter on "abnormal behavior." Shortly thereafter, I realized that I was one of those horrible creatures they were talking about. I had been one for years and had not even known it. I had no place to turn to, no one to talk to. I felt very, very alone. All I had was this horrible image of a mythic being called a homosexual: some half-man, half-woman, who was wierd. All I could find out about homosexuals was that they were effeminate men who were hairdressers and lived in Greenwich Village in New York City--all two hundred of them. (I'll never know where I got the figure two hundred). I thought that I had to choose between going to college or running away to Greenwich Village to become a homosexual. I just couldn't tell anyone I was queer. After all, I was doing well in school, and my parents were proud of me. I couldn't be queer! For a while I really believed it was just a phase I was going through and would eventually outgrow. I didn't want to become a girl or a hairdresser. Then, my second year in college, I began to read articles in the newspaper about the Gay Liberation Front. Suddenly my old ideas started to disappear. There were a lot more than two hundred homosexuals, and I didn't have to be a hairdresser any more. In fact, I didn't have to be "homosexual." I wasn't queer. I was gay!" (Hanckel & Cunningham, 1979, pp. 20-21)[1]

The confusion and disagreement surrounding the definition of "homosexual" carries over, of course, into research studies of homosexual populations. Research is reported on individuals variously identified as homosexual based on overt behavior, assessed sexual preference, and self-labeling as homosexual (Morin, 1977). In addition, a new group of individuals, self-identified as gay is emerging (Morin & Schultz, 1978). Research results on these variously identified samples are not comparable. An example of the problems inherent in using a self-identified homosexual population is illustrated by Blumstein and Schwartz (1977) who found that it was not uncommon for people to self-identify as homosexual without having any homosexual experience. Conversely, for many people in their study, extensive homosexual experience had no effect on their self-identity as heterosexual.

Parental Relationships

Since Freud's reconstruction of the life of Leonardo da Vinci, psychiatry has been enamored with the possibility that male homosexuals hail from families with absent, hostile fathers and controlling, domineering mothers (Green, 1980). Such a family constellation has often been viewed as a critical condition in the development of a homosexual identity. Within this framework homosexuals have been seen as psychologically arrested individuals who failed to resolve the problems of the oedipal or preoedipal stages. Support for this position has been derived largely from anecdotal case studies found in the psychiatric literature (Green, 1980) or from more systematic clinical research on patient populations (Bieber, Dain, Dince, Drellich, Grand, Gundlach, Kremer, Rifkin, Wilbur & Bieber, 1962; Socarides, 1968). A problem with such studies, in addition to the fact that their results cannot be generalized to the majority of homosexuals who never seek therapy (Green, 1980), is that they rely on recollections of historical data which may be further distorted by preconceived biases of the analyst about the etiology of homosexuality (Green, 1980).

Nevertheless, Evans (1969) replicated the Bieber, et al. (1962) study using a sample of volunteer, nonpatient homosexuals and obtained remarkably similar results. Compared to heterosexual males, their homosexual subjects more often described themselves as less physical, noncompetetive loners more likely to play with girls. Their mothers were more likely to be described as cold toward men, seductive towards their son, making themselves the center of their son's attention as they allied with him against the father. These mothers, according to their sons, interfered with adolescent heterosexual activities and discouraged masculine attitudes. In retrospect the fathers were also seen as less likely to encourage masculine interests, were both less accepting of and less accepted by their sons with whom they spent very little time. These men were more likely than their heterosexual counterparts to hate their fathers and be fearful of physical harm.

Although these results parallel Bieber, et al. (1962), Evans (1969), unlike Bieber and his colleagues cautions against attributing etiologic significance to the findings, noting the considerable overlap between the homosexual and heterosexual samples in spite of statistical differences found between groups. Thompson, Schwartz, McCandless, and Edwards (1973) also note the extensive overlap between homosexuals and heterosexuals both in developmental areas and parent-child relationships, arguing against the etiological significance of these relationships. Evans (1969) further hypothesizes that the differential interaction patterns could be the result of differential behavior on the part of the S's to which the parents responded. Green (1980) observes that while adults such as those in the Evans and Bieber studies usually recall that negative parent-child interactions are instigated by the parent, direct observation of these interactions reveal that the father-son distance or mother-son closeness may be either parent-activated or son-activated. Thus, temperamental differences in the child certainly play a role in parent-child interaction patterns.

Hooker (1969), upon reviewing several studies of parent-child relationships among homosexual patient populations, concludes that pathological parental relationships in early childhood are more common among homosexual patients that heterosexual patients. While various studies also show differential and negative, though inconsistent, interactions among non-patient homosexuals compared to heterosexual controls (e.g., Apperson & McAdoo, 1968; Chang & Block, 1960), Greenblatt (cited in Hooker, 1969) and Siegelman (1974) found no difference in parental relationships in the homosexual and heterosexual groups when pathology was controlled in subject selection. It seems that studies of parent-child interaction patterns and the role they play in developing a homosexual identity have generated more heat than light and are of little relevance to the school psychologist face-to-face with the adolescent struggling with a homosexual identity. Succinctly, the weight of the evident leads inexorably to the conclusion "that disturbed parental relations are neither necessary nor sufficient conditions for homosexuality to emerge" (Hooker, 1969, p. 141).

Homosexuality and Mental Illness

The issue of whether or not homosexuality is a mental illness is still the subject of considerable and heated debate in the professional literature in spite of the ratification by the Board of Trustees of the American Psychiatric Association of a recommendation that homosexuality per se did not constitute a mental illness and should be removed from the Diagnostic and Statistical Manual (Marmor, 1980b). Further the Board unanimously passed a resolution deploring discrimination against homosexuals, supporting the enactment of civil rights legislation, and urging the repeal of legislation covering homosexual acts by consenting adults in private.

The American Psychological Association followed suit in issuing the following statement:

> The American Psychological Association supports the action taken on 15 December 1973 by the American Psychiatric Association removing homosexuality from the Association's official list of mental disorders. The American Psychological Association therefore adopts the following resolution:
>
> Homosexuality per se implies no impairment in judgment, stability, reliability, or general social or vocational capabilities;
>
> Further, the American Psychological Association urges all mental health professionals to take the lead in removing the stigma of mental illness that has long been associated with homosexual orientations (Conger, 1975, p. 633).

Actions by the opponents of the American Psychiatric Association's resolution caused the Board of Trustee's decision to be put to a referendum of the membership where it was upheld by a 58% majority. This most unusual circumstance hints at the depth of feeling surrounding the issue of homosexuality both in the professions and in society at large.

The strongest proponents of the homosexuality-as-psychopathology concept are psychoanalysts (Marmor, 1980b) represented by Socarides and Bieber. Yet Freud, writing 75 years ago emphasized that pathology was not inherent in homosexuality, and that homosexuals should not be considered sick or treated as sick people. He opposed barring homosexual individuals from membership in the psychoanalytic association (Marmor, 1980b). Responding to the inquiry from the mother of a homosexual seeking his assistance, Freud wrote, "Homosexuality is assuredly no advantage but it is nothing to be ashamed of, no vice, degradation, it cannot be classified as an illness; consider it to be a variation of the sexual function produced by a certain arrest of sexual development" (Freud, 1951, p. 786).

Psychologists and psychiatrists serve as agents of social control, and those who identify homosexuality as pathologic are simply reflecting society's disapproval of the behavior (Marmor, 1980b). Grave contemporary pronouncements about the pathology of homosexuality may be seen in some perspective when psychiatry's position on another sexual issue, masturbation, is examined. An article in the *New Orleans Medical and Surgical Journal, 1854-1855* asserted, ". . . neither plague, nor war, nor small pox, nor a crowd of similar evils, have resulted more disastrously for humanity that the habit of masturbation; it is the destroying element of civilized society" (Szasz, 1970, p. 186). As recently as 1968 masturbation was listed by the American Psychiatric Association as a mental disorder, and women found masturbating were originally treated by cliterodectomy, then by circumcision as recently as 1937 (Silverstein, 1972). In 1968 masturbation was declassified as a mental disorder unless it was "excessive". In 1974 homosexuality per se was declassified as a mental disorder, and the *DSM-III* carries only the category of "ego-dystonic homosexuality," referring to homosexuals discontent with their lot. Yet even this remnant reflects psychiatry's ancient prejudice in this area since it singles out homosexuals as different from heterosexuals. As Marmor (1980b) observes, "psychiatrists see 'egodystonic celibacy,' 'egodystonic status of being unmarried,' and 'egodystonic states of being divorced' all the time, yet no one would think of creating separate diagnostic categories for such reactions" (p. 401).

Socarides (quoted in Marmor, 1980b) asserts that homosexuals "show symptoms and signs upon deep investigation which would probably place them between the borderline neuroses and the psychoses" (p. 392). Ellis, father of usually rational thinking, sides with Socarides. In an interview with Karlen (1971) he states, "I used to think that most homosexuals were neurotic. Now I think that maybe 50% of them are borderline psychotics" (p. 223). He dismisses the possiblity of a well-adjusted homosexual as thinking sparked by the "new hippie point of view and by the well-meaning but not very scientific views of Thomas Szasz and Ronald D. Laing" (p. 223). Yet, as shall soon be seen empirical data do not support Socarides and Ellis' energetically held views.

Other writers spanning the philosophical and theoretical spectrum from psychoanalysis and behaviorism recognize that homosexuality does not exist as an identifiable psychological syndrome, disease, or unitary phenomenon (Birk, 1980; Gundlach, 1969; Morin, 1977; National Institute of Mental Health, 1969; Stoller, 1975). In order to diagnose homosexuality as a mental illness Stoller (Stoller, 1975; Stoller, Marmor, Bieber, Gold, Socarides, Green & Spitzer, 1973) reasonably argued that there should be: "a syndrome--a constellation of signs and symptoms shared by a group of people, visible to an observer; underlying dynamics (pathogenesis). . .; and etiology--those factors from which the dynamics originate" (Stoller, et al., 1973, p. 1207). He maintained that homosexuality did not constitute a diagnosis since 1) only a sexual preference is evident, not an identifiable cluster of signs and symptoms; 2) different individuals with homoerotic desires possess different underlying psychodynamics; and 3) these dynamics and behaviors are the result of different and unique life experiences.

Spitzer (Stoller, et al., 1973), summarizing the American Psychiatric Association symposium on homosexuality noted that, for a psychiatric disorder to be present, psychological distress or general impairment in social effectiveness or functioning must be present. He concluded that, "clearly homosexuality per se does not meet the requirements for a psychiatric disorder since. . .many homosexuals are quite satisfied with their orientation and demonstrate no generalized impairment in social effectiveness or functioning" (p. 1215).

If, as Socarides and Ellis claim, homosexuality is a disease and homosexuals are sick, neurotic or psychotic we would expect research evidence showing homosexuals to differ from heterosexuals on a variety of psychological measures. If, on the other hand, mental health professionals represented by Spitzer and Stoller are correct in their assertion that homosexuality does not constitute an identifiable syndrome, then we would expect no clear-cut pattern of evidence to emerge. Let us now turn to the data.

Riess (1980) reviewed 23 studies conducted between 1967 and 1977 in which projective instruments were used in an attempt to discriminate homosexual from heterosexual samples as well as 35 studies conducted during the same period utilizing paper-and-pencil tests or questionnaires. Summarizing 16 studies utilizing the Rorschach, Riess confirmed what Hooker (1959) concluded 25 years ago, that homosexuals cannot be distinguished from heterosexuals based on their Rorschach responses. Similarly the Draw-A-Person has failed to show its utility as a diagnostic device. The failure of any projective instruments to discriminate between the two populations in question lead Riess to two possible conclusions. The first, that projective tests were insensitive to existing differences between homosexuals and heterosexuals, was rejected in favor of the alternative hypothesis, that there were few, if any, personality factors distinguishing homosexual and heterosexual individuals.

The Minnesota Multiphasic Personality Inventory (MMPI) was used in 24 instances to test differences between homosexual and heterosexual subjects. The Mf (masculinity-femininity) scale was found to be most predictive of sex-role preference (not to be confused with sex-object preference), yet only six of the 24 studies yielded data suggesting some predictive value of the Mf scale. In one study, taken to represent this class of studies, Manosevitz (1970) found that only 31 items on the Mf scale were significantly associated with the total score, and only 13 of 60 items were significantly associated with external critieria of homosexuality or heterosexuality.

Dean and Richardson (1964), comparing nonclinical samples of college educated homosexuals and heterosexuals found only minor differences between the two groups on the MMPI with the exception of the Mf scale and concluded that their results showed no support for the belief that homosexuals were deviant from the norm. Saghir and Robins (1973) found "surprisingly few significant differences" (p. 109) in the personalities of homosexuals and heterosexuals, and Green (1980) concluded that there are no significant differences in psychological adjustment between the two groups. Chang and Block (1960) found to their surprise that homosexuals and heterosexuals did not differ from one another on self acceptance or ideal self descriptions.

As a result of his extensive review, Riess (1980) was led to firmly conclude that there were no psychological tests which successfully discriminate homosexuals from heterosexuals. More importantly, he concluded that no psychological assessment instruments reveal "any evidence of greater pathology among homosexual women or men than among heterosexuals" (p. 308)

Homosexuality and Effeminacy

One pervasive stereotype concerning gay people is that they violate conventional sex-role stereotypes. Feminine men are assumed homosexual; masculine men are assumed heterosexual. The converse is true for women. If there are no differences in assumed psychological functioning, then surely homosexuals will be found to be different from heterosexuals in the area of sex role. We turn to the evidence.

Thompson, et al., (1973) in a retrospective study of childhood behavior patterns and parent-child interaction found that seven of 30 items distinguished adult female heterosexuals and homosexuals and adult male heterosexuals and homosexuals at the .001 level. Many of these items were related to sex-role behavior. For example, the single item for both males and females having the strongest discriminative ability was playing baseball. Homosexual women were more likely than their heterosexual peers to engage in this activity while homosexual men were significantly less likely to play baseball than their heterosexual counterparts. In addition homosexual women were less likely to play with girls as preadolescents, less likely to avoid physical fights, and were more athletic than girls who developed a heterosexual orientation. Homosexual men were less likely as children to participate in competitive games, less likely to play with other boys as preadolescents, and were less athletic than boys who developed a heterosexual orientation.

Whitam (1977) found that adult male homosexuals were more likely than heterosexuals to report that they played with sex-inappropriate toys, cross-dressed, preferred girls' activities, and were regarded as sissies or as different from other boys than was the case for heterosexual men during childhood. He further noted that many of the homosexuals reporting feminized childhoods were, as adults, thoroughly masculinized and undetectable, a process which for most had occurred by adolescence. Saghir and Robins (1973) report that approximately 67% of both their male and female homosexual sample (self-identified with a concomitant history of homosexual activity) but only 3% of the male heterosexuals and 20% of the female heterosexuals admitted to behavior considered more appropriate to individuals of the opposite gender. Approximately 33% of male and female homosexuals did not consider themselves as sissies or tomboys, however.

While a preponderance of evidence points to the fact that as children homosexuals are more likely than heterosexuals to exhibit cross-gender behaviors, a significant portion of homosexuals do not report this pattern, and some heterosexuals also display cross-gender behavior. As adults, however, male homosexuals are much less likely to appear feminized than they did as children. Heilbrun and Thompson (1977) found that homosexual men did not differ from their heterosexual peers in the percent who were masculine, feminine, or androgynous. Storms (1980) reported consistent findings. For both men and women, homosexuals, heterosexuals, and bisexuals did not differ on measures of masculinity and femininity. Siegelman (1978), on the other hand, found significant differences in femininity between homosexual and heterosexual males. However, this difference may be explained by his use of an instrument which conceptualizes masculinity-femininity as extremes on a unidimensional, bipolar continuum, whereas Hielbrun and Thompson (1977) and Storm (1980) administered instruments reflecting a more contemporary view of masculinity and femininity as two separate and independent dimensions.

In summary, then, while it appears that as children homosexuals are more likely than heterosexuals to display cross-gender behavior, this relationship appears to be much weaker or absent in adolescence and adulthood. There are a significant number of homosexuals who pass through childhood without displaying any sex-role inappropriate behavior while cross-gender behavior can be seen in the histories of some heterosexuals. Although Bieber (Stoller, et al., 1973) contends that prehomosexual boys are easily identifiable, such is clearly not the case, as Green (1980) emphasizes in the statement, "There is, at present, no clear manner with which to discriminate a 'very feminine boy' who is preheterosexual, pretranssexual, pretransvestite, or prehomosexual" (p. 263).

Biology, Ethology and Ethnology

In addition to basing their position on the belief that homosexuality is the result of disturbed family relationships and homosexuals are emotionally disturbed, neither of which is supported by the evidence, the homosexuality-is-an-illness proponents also cite the fact that homosexuals deviate from some biological norm to bolster their argument. A plethora of biological and physical explanations have been proposed and investigated, all with disappointing results. These have included examinations of body constriction, hormone inbalance, chromosomal aberrations, gonadal changes, fetal hormone influences, brain damage, genital morphology, and genetics (Hendryx, 1980; Newton & Risch, 1981).

Having reviewed the research literature on testosterone levels in male homosexuals and heterosexuals since 1969, Tourney (1980) found that three investigators reported a decrease, five reported no difference, and four reported an increased level. Similar conflicting data were reported for other selected hormones. Money (1980) reviewed studies of genetic and chromosomal aspects of homosexuality, concluding that "available evidence supports a nongenetic hypothesis for the origin not only of homosexuality, but of psychosexual differences and variations of all types" (p. 70). In fact Money's studies of the sexual preference of individuals born with ambiguous gender demonstrate that regardless of chromosomal sex (46, XX or 46, XY), infants arbitrarily assigned as females develop an approprite female gender identity and role including the psychosexual and erotic components as do infants assigned as males (Money & Delery, 1976; Money & Ehrhardt, 1972).

Animal behavior and the sexual behavior of people in other societies and cultures have also been cited as evidence that homosexuality is "unnatural." As in the areas of family relationships, psychopathology, and biological factors, the evidence for such a specious argument (what is "natural" about human's cognitive and language abilities, our custom of clothing ourselves or cooking food before it is consumed compared to other animals) supports, rather than refuts the notion that homosexual behavior is a natural and normal variation. Denniston (1980), after conducting a comprehensive review of the literature in this area concluded that homosexuality is not a practice unique to humans. Rather, it has been found to occur in every animal that has been carefully studied. Similarly, cross-cultural studies amply demonstrate the pervasiveness of homosexuality both in approving and disapproving societies (Carrier, 1980; Ford & Beach, 1951; Karlen, 1971; Tripp, 1976). Ford and Beach (1951) after a comprehensive and still widely cited study of sexual behavior concluded that while all societies view heterosexual intercourse as the preferred mode of sexual expression for adults, "cross-cultural and cross-species comparisons. . .suggest that a biological tendency for inversion of sexual behavior is inherent in most if not all mammals including the human species" (p. 143).

Issues in Treatment

Research on the causes and origins of homosexuality is closely linked to prevention and treatment (Morin, 1977). Few researchers have concerned themselves with the causes and origins of heterosexuality (the very concept of the "cause" of heterosexuality sounding slightly peculiar) since few would argue that heterosexuality needs to be treated. Regardless of a given therapist's pet causative theory, by virtue of the fact of providing treatment they all, implicitly or explicitly, view homosexuality as a pathological condition.

Therapists' preferred theory of causality influences their choice of appropriate treatment. Those adhering to a psychoanalytic model seek to prevent or treat homosexuality by examining family constellations, parenting styles, oedipal and preoedipal conflicts, and castration fears. Practitioners opting for a biomedical model are or were likely to treat homosexuality with hormonal therapy including antiandrogen drugs, castration, electroconvulsive shock, lobotomy, implantation of electrodes in the brain, or cauterization of parts of the brain (Newton & Risch, 1981; Roeder, 1970; Sansweet, 1975; Silverstein, 1977; Tripp, 1976).

Behavior treatment methods address behavior, fantasies, and arousal patterns (Stein & Davis, 1982), and the goal of most behavioral therapy reported in the literature is conversion, although therapists are also beginning to report efforts in assisting homosexuals to adapt positively to a homosexual lifestyle (Redd, Porterfield & Anderson, 1979). Early behavioral treatments relied heavily on avoidance learning and aversive conditioning (Birk, 1980) including both chemical and electrical aversive stimuli. These aversive techniques are still employed in treatment as are olfactory aversion, covert sensitization, and shame aversion (Adams, Tollison & Carson, 1981). However, attention is also being given not simply to eliminating undesired behavior (homosexual contacts) but to establishing heterosexual responsiveness. Programs focusing on heterosexual arousal through aversion relief, shaping, orgasmic reconditioning, fading, exposure to heterosexual stimuli, and imaginal, in vivo and in video desensitization are reported (Adams, et al., 1981). Concomitantly heterosocial skill training may be undertaken using self-reinforcement, response practice, or response acquisition (Adams, et al., 1981). Assertion training (Stevenson & Wolpe, 1960) and heterosexual skill training (Masters & Johnson, 1979) by themselves have also been shown to be successful in changing from a homosexual to a heterosexual orientation.

Behavior therapy has also been brought to bear on boys showing gender identity confusion (Rekers, Lovaas, Lauck & Yates, 1973; Rekers, Lovaas & Low, 1974; Rekers & Varni, 1977a, 1977b), predicated on the assumption that childhood cross-gender behavior is indicative of later adult sexual "abnormalities" including homosexuality. In addition to justifying treatment as a preventative measure against future severe adult adjustment problems including homosexuality, Rekers and his colleagues defended their treatment by citing the reduction of ridicule, the greater ease of changing child rather than adult behavior, and allaying the concerns of parents who often express alarm about their child's behavior.

Morin and Schultz (1978) took issue with each of these rationales citing a violation of the child's civil rights and the practitioners' "expressed desire to stamp out in children the option of an adult gay identity, by 'treating' the child" (p. 143). Ross (1981) pointed to the absence of data concerning the long term effects of such treatment, and Morin and Schultz (1978) and Ross (1981) both noted the absence of longitudinal studies supporting the contention that cross-gender behavior in children necessarily leads to severe adult adjustment problems. Indeed, the opposite was found to be the case by Money and Russo (1979) who followed nine prepubertal boys displaying cross-gender behavior to young adulthood. All were homosexual or predominantly so, and none was either transsexual or transvestite. All were found to be high achieving occupationally, and no adult psychopathology was apparent. It is instructive to note that the subjects in this study commented upon the strongly positive therapeutic effect of treatment personnels' nonjudgmental attitude over the years in their personal development.

Nordyke, Baer, Etzel, and LeBlanc (1977) and Winkler (1977) also questioned the appropriateness of the treatment of cross-gender behavior, raising issues of therapist allegience (to client, to parent, to prevailing social norms, to therapists' own values) and validity of societal norms on which such therapy is predicated. It is also relevant to note that a review of the literature yielded no evidence that treating cross-gender behavior in childhood actually reduces the probability of adult homosexuality, transvestism, or transsexualism among the children so treated, Bieber's (1976) claims to the contrary notwithstanding.

Treatment debates are not confined to the issue of intervention with "prehomosexual" cross-gender identified boys. Rather it extends to the treatment, by whatever method, of homosexuality in general; and many writers have entered the fray (Begelman, 1977; Bieber, 1976; Davison, 1976, 1978; Halleck, 1976; Sturgis & Adams, 1978). Bieber (1976) reiterates his adamant believe that homosexuality is a mental illness which would not evolve in the presence of a "loving, constructively related father despite a neurotic mother-son relationship" (p. 163). As such, treatment for children "developing in a homosexual direction" (p. 165) should be available. For adults and late adolescents treatment should be voluntary though Socarides (cited in Marmor, 1980b) believes it should be required. Bieber (1976) laments the "new myth" (p. 166) that homosexuality is a normal variant of human sexual behavior, claiming that societal prejudice is not altered and that the "determination needed for a reconstructive, therapeutic experience" (p. 166) on the part of homosexual is thereby undetermined.

Sturgis and Adams (1978) note that the issue of whether or not homosexuality is normal or abnormal is moot in relation to therapeutic considerations. They point out that behavioral therapists do not offer services only to individuals labeled as mentally ill or abnormal, and that behavioral therapy is appropriate whenever a behavior pattern results in client distress or discomfort. They further note that the decision to undergo treatment should be made by the client, rather than the therapist.

Representing the other end of the spectrum in this debate are Begelman (1977), Davison (1976, 1978), past president of the Association for the Advancement of Behavior Therapy, and Halleck (1976), all of whom call for the cessation of programs designed to convert homosexuals to heterosexuals, whether through use of aversive methods or more positive approaches which, ironically, Davison helped popularize. Given the extreme societal stigma surrounding homosexuality, these proponents claim that homosexuals cannot voluntarily choose conversion therapy since they are often ridden by guilt, shame, and loneliness, the biproducts for the strong negative messages they have received from a hostile society. Halleck (1976) noted that many "voluntary" clients seeking change were actually under considerable pressure from family or the law to change. This was vividly demonstrated unwittingly by Feldman and MacCulloch (1971) who, after protesting the imposition of involuntary treatment went ahead and reported the results of treatment of 43 "voluntary clients", 20 of whom were receiving treatment by court order, or as the result of other legal or family pressure.

Silverstein (cited in Davison, 1976) suggests the first steps in assisting homosexual clients to freely choose therapy is to desensitize them to their guilt, to resolve shame about their desires and actions, and to achieve comfort with their sexuality. Halleck (1976) believes that true voluntary consent to treatment is related to the amount of information clients have about their current difficulties, the potential treatment effects, the various treatments available, and the possible course of behavior with or without treatment. Clients considering reorientation therapy should be given information about current theories of homosexuality, possible hazards of treatment, and the extent their current dis-ease is the result of oppressive environmental stress and intolerance. Halleck has found that most of his homosexual clients have rejected the goal of change after an examination of the preceding issues.

Further objections to therapeutic interventions targeted to conversion are based on the strong message which the very existence of such therapy conveys to both homosexual individuals and society--that a homosexual or gay lifestyle is sick and practitioners of such a lifestyle ought to be cured (Begelman, 1977; Davison, 1976; Morin & Schultz, 1978). The efficacy of conversion therapy has also been questioned. The 65% conversion rate cited by Masters and Johnson (1979) notwithstanding, the most optimistic authorities believe that therapy of whatever orientation results in no more than a 20-50% success rate for highly motivated clients (Marmor, 1980a; Stoller, et al., 1973). Neither Davison (1976) nor Freund (1977), both acknowledged pioneers in the behavioral treatment of homosexuals, believe that the data support the efficacy of aversion therapy as a treatment method for suppressing homosexual behavior, noting that any documented treatment changes are at best transitory. West (1975) asserts that "conversion to heterosexuality, even though earnestly desired for reasons of social convenience, cannot be attained by any known method of treatment" (pp. 159-160). Further he notes that it is easier to inhibit sexual impulses than to develop new sexual tastes, a position supported by the work of Feldman and MacCulloch (1971). Marmor (1980a) contends that while overt behavior may be changed, some sex erotic arousal is probably never totally lost. Just as the existence of conversion therapy sends a negative message to homosexuals, the poor success rate of such treatment further communicates that homosexuals are so sick they can't be helped (Morin & Schultz, 1978).

Counseling the "Homosexual" Adolescent

Differentiating Homosexuality and Heterosexuality

Adolescent homosexual behavior may come to the attention of the school psychologist through a variety of sources. A teacher chosen as a confidant by a gay adolescent may seek advice and support as she becomes increasingly uncomfortable in dealing with the youth's disclosures and feelings. Alarmed parents, discovering their child in a compromising position with a person of the same gender may urgently seek services. School personnel, unable to effectively manage the persecution of a student, targeted for whatever reason as homosexual by his peers, may initiate a referral. The adolescent himself (the masculine pronoun is used since boys are more likely than girls to experience same-sex relationships and to do so at an earlier age) may, either upon presentation or after a period of trust building and testing, reveal his homosexual proclivities.

Early in the counseling process after the adolescent's announcement, "I think I'm gay" (or however it is expressed), the school psychologist may think it desirable to differentiate (the term "diagnose" is avoided since it implies that homosexuality is an identifiable entity, which it is not, or a mental illness, which it is not) whether the client is indeed homosexual. Unfortunately this is a difficult task which may be inimical to the welfare of some clients while benefical to others. First of all the task is difficult because, as has been discussed earlier, homosexuality is neither simply defined nor an all-or-nothing phenomenon. There is no psychological assessment device extant (eye lashes on the Draw-A-Person notwithstanding) which has proven valuable in differentiating homosexuals from heterosexuals. While defining homosexuality behaviorally may be of some utility from a counseling perspective (Kremer, et al., 1975), the value of using such behavior as a basis to differentiate homosexuality from heterosexuality is dubious since there is no predictable relationship between sexual behavior in adolescence and sexual behavior and preferences in adulthood. The majority of adolescents who engage in homosexual activity do not continue this practice into adulthood (Kinsey, et al., 1948). Conversely as many as 31% of gay adults engaged in no homosexual behavior until they were out of high school (Schofield, 1965).

Glasser (1977) stresses that homosexual behavior in adolescence does not have the same significance as similar behavior in adulthood. In early adolescence (puberty to age 15) particularly, overt homosexual activity is common, and such activity contributes to the adolescent's development. Just as masturbation is a means of self-exploration and experimentation, homosexual activity during this narcissistic stage is "used for such developmental purposes as information-gathering, comparison, reassurance and experimentation" (Glasser, 1977, p. 218). The shared sexual activity also helps allay guilt feelings. It is not until late adolescence (18-21) that Glasser believes that homosexual behavior can be seen as indicative of an established sexual preference.

Yet it would be as inappropriate to assume the adolescent sitting before you was merely "passing through a phase" while offering platitudinous assurances that he is really quite normal as it would be to assume that the client was, indeed, homosexual. School psychologists resorting to cliche therapy ("It's just a phase that everyone goes through.") miss the opportunity to address "the socialized attitudes that make the existence of same-sex eroticism both frightening and unacceptable" (Malyon, 1981, p. 324). It implicitly reinforces the concept that homosexuality is undesirable and leaves the client isolated and further conflicted in the event that homosexual impulses either do not, in fact, pass or reoccur at a later time. Such assurances are not supportive, and clients, whether homosexual or heterosexual, subjected to them are often left to feel abandoned, misunderstood, and discounted (Hanckel & Cunningham, 1979; Wein, 1982; Woodman & Lenna, 1980). Similarly, messages that implicitly or explicitly communicate a preference for heterosexual activity ("Just go out and date more."), while decidedly unhelpful to the heterosexual client, violates the personal freedom and rights of the emerging gay adolescent and constitutes a breach of professional ethics (Ivey, 1972).

With these considerations in mind, the school psychologist is still left with the problem of differentiating the homosexual from the heterosexual adolescent, both of whom are presenting homosexual concerns. One option is simply to leave the question open, recognizing that either a homosexual or a heterosexual orientation or both is equally acceptable, and ultimate sex-object preference is really irrelevant to the current, here and now concerns of the adolescent. Evidence supporting the viability of this position is presented by Blumstein and Schwartz (1977) who found that adolescents who escaped being labeled by peers and others (sissy, fag, queer) were less likely to apply such pejorative labels to themselves and thus avoid being victims of a self-fulfilling prophecy.

When a client declares he is homosexual one of the first tasks of the school psychologist is to determine what exactly the adolescent means by such a statement. Ignorance and misinformation about homosexuality and homosexuals abound among adolescents, and they may have accepted such a self-label merely because someone they respect, for whatever reason, applied it to them. The adolescent may refer to himself as homosexual because of a transient homosexual desire or isolated homosexual experience. Often the label is applied when no same-sex desires or experiences are involved, as when an adolescent boy exhibits effeminate mannerisms, distinctive speech, or greater interest in sterotypically feminine activities than stereotypically masculine ones, and, because of this, labels himself homosexual in accord with the popular and erroneous stereotypes about gay men. Similarly a very stereotypically masculine adolescent engaged in an ongoing homosexual relationship may reject such a self-label for the same reason--he does not fit his stereotype of a homosexual man ("I can't be queer, I'm the star of the football team.")

While many adolescents who present themselves experience confusion about their emerging sexual preferences, some know from an early age that they are gay (Norton, 1976; Wein, 1982). Woodman and Lenna (1980) identify eight factors which may be helpful in differentiating an individual with coincidential same-sex experience from those who are gay. However, the reader is cautioned that one or more of these indicators does not mean a person is gay, nor should a homosexual or gay self-identity be denied in the absence of homosexual experience.

The differentiating factors follow: 1) higher arousal by members of the same sex, same-sex masturbatory fantasies, and preference for eyeing the same sex; 2) seeking out and enjoying same-sex experiences as opposed to same-sex occurrances being random or incidental; 3) disproportionate number of sexual experiences with same-sex partners; 4) pattern of same-sex relationships characterized by duration and intensity to the exclusion of opposite-sex attractions (to be distinguished from adolescent infatuation with same-sex movie stars or other admired adult); 5) future expectations and fantasies indicate that client looks forward to daily involvement with members of the same sex; 6) seeks social interaction with members of the same sex (this would not discriminate in adolescence where same-sex social groups are normative); 7) self identifies as gay or homosexual (as already noted the school psychologist must determine what meaning such a self-label has for the adolescent); 8) uncomfortable with heterosexist demands and pressures including "fag" jokes, news of homosexual oppression, or expectation of heterosexual dating.

While the preceding guidelines may be useful in differentiating homosexuals from heterosexuals, the school psychologist should also be aware that during the adolescent years 1) neither homosexual nor heterosexual experimentation is unusual; 2) the youth's pleasure in a homosexual act is not necessarily indicative of homosexuality; 3) neither homosexual nor heterosexual activity constitutes a confirmation of one sexual orientation or the other; and 4) as a time of sexual self-discovery, there is no need for adolescents to establish their identity or accept a label imposed by others unless it is congruent with their self-image (Woodman & Lenna, 1980). At the same time, 15% of Dank's (1971) male homosexual sample self-identified between the ages of 10 and 14, and 79% did so between 15 and 19.

Problems of Self Identity

Conceptualizations of treatment should consider that the overriding task of adolescence is the development of a self-identity, of which the adolescent's sexuality constitutes a cornerstone. Along with resolving the parent-child relationship, formulating a personal value system, developing a sense of continuity, and resolving residual trauma, establishing a sexual identity signals the successful conclusion of adolescence (Siegel, 1982). Few would deny the considerable societal support for establishing a heterosexual identity. The overwhelming majority of us grow up in heterosexual households; we are surrounded by heterosexual role models who assume that everybody will grow to date members of the opposite sex and marry. Heterosexual imprinting begins in childhood before children are aware of the possibility of another alternative (Penelope, 1979). At the same time that a heterosexual identity is positively promoted, vigorous societal proscriptions against homosexuals and homosexuality serve to reinforce the desirability of a heterosexual orientation (Lukenbill, 1978) and discourage individuals from wandering from the straight path. While the development of a positive identity can be a difficult achievement for the heterosexual adolescent, for the homosexual adolescent the problem is exacerbated by the absence of available positive role models, the existence of homophobic attitudes, and the fact that to be homosexual in our society constitutes a profound stigma. Each of these services will be considered in turn.

Lack of Role Models

In an effort to protect children from what they view as pernicious homosexual influences, anti-gay society actively attempts to eliminate the existence of gay role models (Marmor, 1980c; Warren, 1980). Anita Bryant spoke for many in her crusade to maintain discrimination against gays. "I'm concerned about how it (the Dade County ordinance granting civil rights to gays) might influence the children. . .I mean people who are role models being able to stand up and say 'I'm homosexual and I'm proud of it'--implying to our children that they have another legitimate choice open to them" (in Raspberry, 1977, p. 7).

This firmly held belief is predicated on the erroneous assumption that homosexuality is a path freely chosen by an act of conscious will, or is caught from others as a result of seduction, or through, as Bryant suggests, modeling (Marmor, 1980c; Warren, 1980). These tenets are held by many individuals in spite of widespread agreement among professionals on both sides of the homosexuality-as-disease issue (Bieber, 1976; Bieber, et al., 1962; Stoller, et al., 1973; Marmor, 1980c; Money & Ehrhardt, 1972; Warren, 1980; West, 1975) that modeling is not a relevant factor in the acquisition of a homosexual identity, and that same sex-object preference is established very early in life, certainly prior to adolescence. Money and Ehrhardt (1972) view homosexual, heterosexual, and bisexual preferences arising out of prenatal neurohormonal or biochemical influences in combination with unspecified early developmental influences.

While role modeling is irrelevant in acquiring an identity as a homosexual, it is difficult to develop positive feelings about oneself as homosexual in the absence of gay role models. Recurrent themes in adolescents' stories (Hanckel & Cunningham, 1979; Wein, 1982) focus on the deep sense of isolation and uniqueness that homosexual adolescents experience because they are not aware of the existence of other gay adolescents or adults. While other minority youth's ready access to parents and public figures as role models can provide important support for establishing a positive identity, the homosexual youth is not afforded the same opportunity. They are left to their own devices as they attempt to gain an appropriate sense of self.

Homophobia

Nevertheless, in spite of the evidence, a substantial segment of society harbors and incubates a profound, deep-seated, irrational and pathologic fear and anxiety about homosexuality. In addition to ignorance, their homophobia may have its roots in individuals' insecurity about their own sexuality and gender identity in combination with fundamentalist religious indoctrination (Marmor, 1980c). Morin and Garfinkle (1978) found that the quintessential homophobe was a rural, white, first-born male from the South or Midwest who was religious, conforming, authoritarian and dogmatic with an intolerance for ambiguity. He was status-conscious, guilt-ridden, sexually rigid, and negative about his own sexual impulses. The single best predictor of homophobia was found to be an expressed belief in the traditional family structure with a dominant father and subservient mother.

Homophobia expresses itself in gay murders and threats of violence, in the denial of civil rights, and the avoidance of gay-identified individuals (Crew & Keener, 1981; Woodman & Lenna, 1980). It is seen in the refusal of the United States Marine Corps to accept toys and cash donations from the gay community for their Toys-for-Tots program (Ehrlich, 1980). It is manifested in police harassment and in the rumor, innuendo, and gossip of the non-vocal silent majoirty. It is reflected in the attitudes of teacher trainees (Baker, 1980), 43% of whom agreed that teachers who regard homosexuality negatively should be able to request that the student be moved to another class, 37% of whom felt that homosexuals should not be allowed to teach, and 25% of whom admitted that they could not treat a gay student fairly.

The consequences of homophobia to homosexuals are easily imagined. In addition to the persecution, both subtle and overt, homosexuals may experience self-loathing and a deep sense of shame. They chronically negate themselves, just as others negate them, desist from sexual contact, reduce career aspirations, view themselves as sick, and believe, as they have been taught, that all homosexual relationships must ultimately meet an unsavory end (Weinberg, 1973).

Yet homophobia has consequences for the heterosexual society as well, in the fear of intimacy between father and son, the isolation separating two male friends, the suffering experienced by parents and siblings, and the sense of betrayal on the part of spouses who may have unwittingly married a homosexual before either could acknowledge the partner's identity.

Homosexuality and Stigma

To be homosexual in our society constitutes a profound stimga, a term used by Goffman (1963) to refer to any condition that is deeply discrediting. Upon discovery, individuals found to have a stigma are viewed as tainted, inferior, dangerous, or weak. By definition, Goffman notes, a person with a stigma is less than human. Since the stigmatized person is inferior to ourselves, we are at liberty to impose a variety of discriminatory practices which effectively reduce the individual's life chances (Goffman, 1963). We construct a theory to explain the perceived inferiority (e.g., that homosexuals are morally degenerate people who could be heterosexual if they chose to) and the dangers it represents.

Goffman identifies two types of stigmatized individuals, the discredited and the discreditable. Discredited individuals posses a stigma (skin color, physical handicap, obesity, disfigurement, blindness) that is immediately apparent upon meeting, and persons so stigmatized face the problem of managing the tension automatically arising in social discourse. The discreditable individuals, harboring stigmas that are not immediately apparent (homosexuality, drug abuse, criminal record), are continually faced with the task of "managing information about (their) failing. To display or not to display; to tell or not to tell; to let on or not to let on; to lie or not to lie; and in each case, to whom, how, when and where" (Goffman, 1963, p. 42). Unlike the discredited who cannot hide their stigma, discreditable individuals live with the constant fear of the sanctions which could result from discovery including loss of job and social status, alienation from family and friends, or legal action.

The homosexual living in a hostile heterosexual society is constantly faced with decisions of disclosure which can become all-consuming and overpowering. Such individuals may be torn by the desire to share their secret with family and friends they care deeply about thus offering the promise of a relationship built on openness and mutual trust rather than on secrecy and deceit. However, to do so entails the risk of alienation and ostracism, consequences of awesome magnitude to adolescents who risk being told to leave home at an age when they are not yet ready for self-sufficiency. Thus, while possessed by a longing to disclose their identities as homosexuals to people they love and by whom they wish to be loved in return, fear of the consequences require homosexuals to be ever vigilant lest through some word, some gesture, they give themselves away.

Such individuals fall victim to the pathogenic secret, defined as "personal information intentionally withheld which induces a state of physical and psychological dysfunction" (Ehrlich, 1980, p. 3). The pathogenic secret can become so overpowering that it results in physical symptoms and occasionally death, though much more frequently in neurosis, irrational, or eccentric behavior (Ellenberger, 1966).

The opprobrium still associated with homosexuals in our society does not merely serve to inform heterosexuals about the parameters of appropriate sexual benavior. As Goffman (1963) notes, stigmatized persons, like their nonstigmatized counterparts, first of all learn to devalue the group of stigmatized individuals of which they are a member. Thus homosexuals, just like heterosexuals, learn that homosexuals are base, immoral, unworthy, perverted, and queer. They are as susceptible to homophobia as is straight society and, like straight society, learn to devalue, discount, and stigmatize homosexuals. Consequently homosexuals may acknowledge their homosexuality and with it the negative connotations attributed by a hostile environment. On the other hand, though actively homosexual, they may not see themselves as possessing these negative attributes that homosexuals are "supposed" to possess, and thereby fail to identify themselves. With the foregoing issues in mind we now turn to a central theme in counseling the gay adolescent, or any adolescent for that matter, positive identity formation.

Counseling and Identity Formation

When you stop to think of it, achieving a gay identity is a significant accomplishment in the face of considerable odds. Neither society's "sinful-criminal-sick view of homosexuality" (Morin & Schultz, 1978) nor the absence of role models is sufficient to prevent its development in significant numbers of individuals. (Incidentally the assertion that homosexuality is on the increase as the result of gay activism and more permissive sexual attitudes enjoys no empirical support. Sex researchers generally agree that incidence has not increased over the past 30 years, and may, in fact, be declining.) The dawning of a homosexual identity began for approximately 15% of the subjects in one study (Dank, 1971) with a search for information in the library.

An individual's identity as a gay person is of much greater moment than is that of the heterosexual. Being gay is figural, sometimes tiresomely so; being straight is ground. Just as we rarely notice air unless we are choking, heterosexuals, living in a heterosexual society, are rarely aware of their sexual identity while gays are rarely unaware of theirs. This may be due in part to the price paid in the process of achieving and maintaining a gay identity.

Malyon (1981) identified three modes of adolescent adaptation to the dilemma presented by homosexuality: repression, suppression, and disclosure. Repression represents the most primitive and unsatisfactory adaptational response with homosexual impulses manifesting themselves precipitously at a later time, possibly causing a severe disorganization of the individual's coping mechanism. Suppression of homosexual impulses is more adaptive resulting in a better prognosis. The process of identity formation, of which sexual identity is a major component, is postponed, often to reemerge in the the thirties or forties as the individual attempts to integrate this previously disowned piece of himself. Unresolved adolescent issues are often recycled, manifested by sexual experimentation and a preoccupation with physical appearance and peer approval and acceptance.

For the minor choosing disclosure Malyon (1981) and Woodman and Lenna (1980) note the problems which mitigate against a successful outcome. These include the absence of institutional and social support and alienation from peers. Minors fail to find welcome in the adult-oriented gay culture which is leery of them because of legal sanctions. Supportive counseling may not be available since parents may only accept conversion therapy as an appropriate treatment goal.

Woodman and Lenna (1980) identify several steps on the path to the development of a gay identity. The first, denial, has already been successfully surmounted by the time the adolescent musters the courage to entrust the school psychologist with the intelligence that, "I think I'm gay." In the following phase of identity confusion, clients think they are gay but are not sure. They may project anger onto identified gays or the counselor. They may disclaim being gay since their behavior does not conform to popular gay stereotypes, or they may begin to behave according to popular myths, changing wardrobes and affecting effeminate behavior.

Intervention during this phase should focus on clients' self-image, the identification of gay support systems, and the redirection of anger at appropriate targets. Education concerning gay lifestyles and popular erroneous stereotypes should be provided. Stereotypic behaviors should be explored to determine which, if any, are consonant with self-identity and which are unwise attempts to conform to a preconceived gay stereotype.

Prior to the ultimate emergence of a positive identity, bargaining and depression may occur. The sense of shame and guilt may be overwhelming. Adolescents may experience a loss of self-esteem accompanying the loss of environmental support systems as the outcome of an attempt to integrate a gay identity. The school psychologist who is supportive, acknowledging the pain without minimizing it while communicating confidence in the adolescent's ability to exert control over his life is most helpful. Active listening at this stage is very important. Principles and techniques of Gestalt therapy (Beane, 1981) can greatly assist the adolescent in achieving a sense of control and resolution.

The beginning of liberation is the rejection of shame, and shame is perhaps one of the most fundamental feelings experienced by both adolescents and adults in their struggle to come to terms with their sexual identity. This feeling needs to be acknowledged and met openly. Since shame is often associated directly with homosexual acts and fantasies, there may be value in exploring the client's sexual behavior in some detail including the sequence of behavioral occurrences, accompanying hopes and fantasies, fears and disgust, physical description of partners, position of bodies, sources of enjoyment, and disappointment (Daher, 1977). Such explicit sharing "avoids the dilemma of sending implicit messages that what has been heard is acceptable but the unspoken details may not be" (p. 15). Continued acceptance by the school psychologist in light of such disclosures powerfully communicates that the adolescent's sexual acts and fantasies, which are the source of so much shame, are not despicable or shameful. Obviously such an intervention should be undertaken only after considerable trust has been developed and only if the school psychologist is completely comfortable with such disclosure.

"Coming out" refers to the "developmental process through which gay people recognize their sexual preferences and choose to integrate this knowledge into their personal and social lives" (de Monteflores & Schultz, 1978, p. 59). As such it cannot be separated from the development of a personal identity as a gay individual. Coming out continues over the life span of the gay person, beginning with the first awareness of a sense of differentness and is characterized by several identifiable milestones including initial awareness of same-sex attractions, same-sex experience, and revealing one's homosexuality to friends, parents, and public (de Monteflores & Schultz, 1978). These experiences can be ordered on a continuum from covert (coming out to self) to overt (coming out to others).

A homosexual who comes out only to himself cannot develop a positive self-identity. Jourard (1964) writes eloquently of the value and necessity of self disclosure in the development of a healthy personality. He notes that people can only fully know themselves as they reveal themselves fully to another. Identity is not developed in an interpersonal vacuum. The act of revealing a hitherto undisclosed aspect of the self to another, at once so simple and yet so horrifying, can serve as a remarkable balm as the burden of the pathogenic secret is lifted (Ellengerger, 1966).

As essential as coming out is in the development of a positive identity as a gay person, it obviously is frought with the hazards, both potential and real, which always accompany disclosure. In working with an adolescent it is imperative that school psychologists assist their clients in developing a realistic appreciation of the advantages and penalties of both remaining in the closet and coming out.

Further Considerations

Many parents could imagine little worse than somebody receiving a disclosure that their child is gay. Perhaps the most common reaction after the initial shock wears off is blame ("Where did I go wrong?"), followed rapidly by anger and shame. It is impossible to predict how a given parent will react to disclosure. Silverstein (1972) provides illustrative examples of disclosure met with aplomb at one extreme to violence at the other. Most families fall somewhere in the middle of the continuum, and it is reasonable to expect that weathering the crisis of disclosure will depend in large part on parental attitudes toward homosexuality as well as the strength and health of the family system.

Parents seeking assistance from the school psychologist need the same support their child needs. Their understanding of homosexuality should be explored and misconceptions aired in conjunction with an examination of their feelings surrounding disclosure. The educative function of the school psychologist should not be underestimated. Parents need to come to understand that their child is really no different than he ever was, they only know more about him, and that now, more than ever, when they are perhaps least able to muster their resources, he needs their support at this time of crisis. It is possible that parents will seek conversion as a treatment goal, and they may insist, in spite of their child's objections to the contrary, that he see a psychiatrist or other mental health professional with this goal in mind. Education about the nature of homosexuality, and the methods and outcomes of therapy may be valuable in encouraging parents to reconsider a decision made in haste, anger, and panic.

Like gays, parents, too, are left with nowwhere to turn and no one to turn to for succor at this time of crisis. They may be too embarrassed to discuss such a matter with family or friends and live in dread that the community discover their shame. Information specifically for parents (Fairchild & Hayward, 1979; Silverstein, 1972; Weinberg, 1973) can be both comforting and informative in increasing understanding and managing the crisis.

It is imperative that school psychologists undertaking counseling with an adolescent focusing on homosexuality be aware of their own attitudes and values vis a vis homosexuality. Ideally they should be accepting of the legitimacy of a same-sex sexual and affectional preference as a viable life choice and be comfortable interacting with gay people. A broad knowledge base concerning homosexuality and gay life styles is necessary, and school psychologists should be open about limitations of knowledge, experience, and attitudes toward homosexuality (Woodman & Lennz, 1980). Counseling is not a value-neutral endeavor, and it is important that the client be aware of the school psychologist's values thereby providing a framework within which the adolescent may understand the school psychologist's input. If school psychologists feel threatened by homosexuality, it is necessary that they explore the source of these feelings and obtain closure on unresolved personal conflicts in this area so that their own problems are not brought into the counseling session with negative consequences.

Ideally school psychologists uncomfortable with homosexuality or disparaging of a gay lifestyle should not counsel adolescents in this area. Unfortunately, in rural areas especially, additional counseling options are limited; however, if the school psychologist's homosexual biases are strong and adamantly held, no service would probably be a preferable couse of action. It is left to the integrity of the individual school psychologist as to which course of action is in the adolescent's best interests.

Because of the strong feeling surrounding homosexuality, school psychologists must be aware of the perils involved in counseling a homosexual adolescent. Woodman and Lenna (1980), in preparing a chapter on homosexuality in adolescence, were urged to avoid totally such a sensitive subject. When this writer called a local gay counseling line to obtain the name of a therapist experienced in working with gay adolescents the worker informed him that most gay adults were afraid to deal with teenagers because of the risks of being charged with the corruption of the morals of a minor and pederasty. School psychologists' acceptance of homosexual behavior and feelings may be regarded as highly inappropriate by parents, school personnel, and supervisors with negative consequences including loss of employment. Supportive school psychologists may themselves become suspect and their effectiveness compromised. Yet the adolescent experiencing homosexual conflict will remain with us, and he needs somebody with the courage to assist him.

Myths and Facts about Homosexuality

Myth	Fact
1. Homosexual behavior is rejected in all societies.	1. In 76 different societies studied by Ford and Beach (1951), 64% of them accepted homosexual activity for at least some members of the community.
2. The majority of homosexual men suffer gender identity confusion or exhibit effeminate behavior.	2. Measures of masculinity and femininity do not discriminate homosexuals from heterosexuals (Storms, 1980). Only about 15% of exclusively homosexual men are to some degree effeminate as are some exclusively heterosexual men (Voeller, 1980).
3. Male homosexuals recruit and seduce young children and adolescents for sexual acts.	3. Proportionately fewer homosexuals seek sexual relations with minors than do heterosexuals (Marmor, 1980a).
4. Gays possess a sixth sense that enables them to identify other gay people.	4. For the most part gays are no better than nongays in recognizing other gay people (Voeller, 1980).
5. Most transvestites are homosexual.	5. The majority of men who cross-dress are heterosexual (Fleinbloom, 1976).
6. Homosexual parents produce homosexual children.	6. It is rare that children of homosexuals themselves become homosexually oriented (Bieber, 1976; Green, 1978).
7. Homosexual seduction in childhood or adolescence plays an important role in developing a homosexual identity.	7. Childhood or adolescent homosexual activity does not appear to play an important role in the individual's emerging self-identity as homosexual or heterosexual (West, 1975).

Myth	Fact
8. Blaming, absent, or ineffectual fathers and domineering, seductive mothers cause their sons to become homosexual.	8. While such a family constellation has been found among clinical samples of homosexuals, many homosexuals do not grow up in such homes and many heterosexuals do (Hooker, 1969).
9. Homosexuality is inherited.	9. Genetic hypotheses of causality are not supported by the available evidence (Money, 1980).
10. Gays lead loney, isolated lives as adults since they are incapable of establishing meaningful, long-term relationships.	10. Sociological studies simply do not support these assertions (Bell & Weinberg, 1978).
11. Homosexuals are mentally ill.	11. Studies of the psychological adjustment of nonclinical homosexuals indicate that they are as healthy as their nonclinical heterosexual peers (Saghir & Robins, 1973).
12. Homosexuality can be successfully treated.	12. Even among highly motivated homosexuals seeking conversion therapy the success rate is most optimistically estimated to be 50% (Marmor, 1980a).
13. The number of homosexuals has increased markedly in recent years.	13. No evidence suggests that homosexuality is more frequent today than in the 1940s (Hunt, 1977).
14. Homosexuals lead unhappy, unproductive lives.	14. Some homosexuals lead unhappy unproductive lives as do some heterosexuals. The majority of homosexuals are self-adjusted, productive adults who can be found in all occupations and among all social strata (National Gay Task Force, undated).
15. Homosexuality is a choice one makes.	15. Homosexual feelings are not a matter of choice just as heterosexual feelings are not a matter of choice. Neither is the basic sexual orientation, established early in childhood, a choice. Both homosexuals and heterosexuals can choose what to do in response to their feelings (National Gay Task Force, undated).
16. Homosexuals don't marry and people who never marry are probably gay.	16. Roughly 20% of homosexual males and 66% of lesbians marry (Bell & Weinberg, 1978). Approximately 50% of adults who never marry ever have homosexual relationships (Kinsey, et al., 1948).

Myth	Fact
17. Homosexuals are incapable of heterosexual intercourse.	17. Approximately 50% of homosexual males and 80% of homosexual females have engaged in heterosexual intersource (Saghir & Robins, 1973).

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Children Coping with Divorce: School Psychological Management and Treatment

David Kieffer

Abstract: The effects of parental separation and divorce on children are conceptualized from behavioral developmental, and family systems perspectives. Conceptualizing these effects on learning, affect, and behavior is the framework for assessment and treatment by the school psychologist. Assessment method and intervention alternatives are discussed in terms of applicability to the child and his or her unique relationship with the environment. In meeting the needs of children, school psychologists must continue role development in keeping with societal change.

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Introduction

There is a growing awareness of the impact of separation and divorce upon school aged children. Divorce statistics have significantly increased over the past several years. Heatherington (1979) reports that the country's divorce rate doubled between 1965 and 1978, that our divorce rate is highest in the world, and that 40% of current marriages of young adults can be expected to end in divorce. She reports a projection that 40% to 50% of children born in the past decade will spend some time living in a single parent family.

Today one out of every five children in an average American classroom lives in a single parent home. While remarriage would seem to resolve the problem of single parenting, data shows that many single parents do not remarry and about half of all remarriages end in divorce (Bronfenbrenner, 1980). Heatherington (1979) concludes that the average length of time children spend in a single parent divorced home is now about six years.

School psychologists are often faced with the difficult referral issue of a child who begins to demonstrate academic and behavioral difficulties for no apparent reason. Upon investigation it is revealed that the child's parents have decided to separate or divorce. The question becomes one of how much service, if any, should the psychologist encourage for the child on behalf of school personnel?

A rationale for the school's involvement in this referral population is provided by Drake (1981). There are some potentially positive forces in operation at school which can be very beneficial to the child experiencing separation or divorce. The school should be considered a natural setting for supportive services since children are involved with school activities approximately 1/3 of their waking hours each week. Considerations such as societal values, and options and expectations of school personnel impact upon the child's self concept. The child coping with problems of a personal family nature often has a low self concept and feels rejected by one or both parents. The establishment of a relationship in school to a significant other, particularly one of the same sex as the absent parent, can be very beneficial to these children. In my experience, many of these children sense this need and tend to seek out an adult for assistance in this regard. Wallerstein and Kelly (1980) recognized the school's importance for children of divorce: "...those children who were doing well at the time of the divorce, despite the turmoil in the family, were mature, bright youngsters who were enjoying school and had begun to derive considerable gratification from these out-of-home activities separate from their parents" (p. 51). However, a longitudinal study in California indicated that only 34% of school-age children were happy and thriving five years after the divorce while 37% were depressed.

It appears that American society expects its public schools to confront the problems inherent for children coping with separation and divorce. Many persons have expressed a desire to have schools provide special services to one parent families. In a recent Gallup education survey of 1,547 American adults, responses clearly supported that 1) teachers should receive special training to help them deal with the problems of children from one parent families, 2) school personnel should be available for evening conferencing and counseling with working single parents whose children are having trouble at school, and 3) activities should be provided by schools so children can spend more time there rather than return to an empty house (Gallup, 1980). In a follow-up survey, sampling professional school personnel, Elam & Grough (1980) found that a majority of school employees favor these proposals.

The school appears to be a more logical resource since children and helping professionals are readily available in the setting. Children in schools have access to counselors, school psychologists, school social workers, and teachers. Drake (1981) notes that an asset to seeking help at school is that the child and parents avoid the possible stigma associated with the use of outside mental health facilities or private practitioners and the expense of such treatment. It tends to avoid, as school psychologists are fully aware, child and parent resistance to therapeutic intervention. Another school related benefit is that children are grouped by approximate academic and chronological age levels, providing the possibility for preventive group treatment or small group intervention.

At present, the public schools are not making a sufficient social contribution toward helping children cope with separation and divorce. Stated in a positive way, there is room for significant growth and change on the part of schools and school psychologists in helping these children. School psychologists can well understand the difficulties encountered when attempting to educate (to the fullest potential) children struggling with unresolved emotional issues. This chapter has been written in an effort to help school psychologists raise the school's competency level as a resource to families of separation and divorce. An attempt has been made to raise the psychologist's awareness of his or her powerful potentially positive influence in the school for children and parents before, during and after a parental separation. Described are the effects of divorce on school performance across various developmental stages, assessment of these effects, and programs for intervention in the school setting.

Conceptualizing the Divorce Process

It is believed that a significant number of students are experiencing school problems due to divorce. For the interest of clarity, it is noted that not all children of divorced couples develop academic, social, or interpersonal problems. It is generally true that parental separation and subsequent divorce are crisis events which can effect the way children behave and learn in school. Coddington (1972) found that of 35 life change events in elementary school aged children, the events of separation and divorce required the greatest amount of social readjustment. Similarly, the New York Association of School Psychologists recently reprinted a survey of 367 4th through 6th graders who responded to a scale of 20 potentially stressful life events. These children rated events from one (not stressful) to seven extremely stressful). Losing a parent received the highest rating (6.90). A count of referrals for comprehensive evaluation for special education services in New Jersey revealed that children of divorced couples often need special help (Gross, Dibbell, & Petti, 1977). Nearly half of the 60 children of divorced familes investigated by Kelly and Wallerstein (1977) demonstrated striking changes in behavior and affect in the school setting.

While separation and divorce can be viewed as life "events" capable of producing stressful readjustment, it is also wise to view the divorce as a "process" of change. In my practice as a school psychologist, I have found that one of the major concerns of parents is the effect of the divorce on their children. It is helpful for them to conceive of divorce effects as Gardner (1976) states:

> "Divorce, per se does not necessarily produce psychopathology in the child. However, ... the child of divorce is more likely to develop such reactions than the child who grows up in an intact, relatively secure home" (p. 39).

In terms of process, the school psychologist must recognize that it is almost impossible to differentiate the effects of the separation event from the effects of the various traumas that may have been suffered before, during, and after the parental separation. It is the exposure to a detrimental environment over a period of time that is harmful rather than the acute trauma of separation. Leupnitz (1979) interviewed 24 well adjusted college students (whose parents had divorced before the children were age 16) around which aspects of the divorce were the most difficult to cope with. A majority of the subjects reported that it was the pre-divorce conflict in the home which presented the major problems to them. The study also showed that post-divorce factors were difficult. Major problems were social embarrassment, diminished parental companionship and affection, lower family income, and often having to care for younger siblings.

While divorce is a stressful event for children, to a large degree it is not the divorce, but the emotional situation in the home, with or without divorce, that is the determining factor in a child's reaction. Heatherington (1979) argues that an inaccessible, rejecting, or hostile parent in a nuclear family is more detrimental to the development of the child than is the absence of a parent. Divorce is often a positive solution to destructive family functioning. However, most children experience divorce as a difficult transition, and life in a single parent family can be viewed as a high-risk situation for these children. This is not to say that single parent families cannot or do not offer effective settings for the development of stable, happy children, but the additional stresses and the lack of support systems confronted by divorced families impose additional burdens on their members.

A crisis model of divorce may be the most applicable in conceptualizing the short term effects of the divorce event on children. In the period of time during, and immediately following, parental separation the child may be responding to stresses associated with conflict, loss, change, and uncertainty of the family situation. However, we must attend to the sequence of events and changing family processes associated with the divorce. Longitudinal data of 48 divorced families (Heatherington, 1975), shows that family disequalibrium peaks at approximately one year and is normally reestablished at about two years. Permanent changes usually occur in economic life styles and changes in attitude toward self (in reference to two parent intact peer group).

Most researchers agree that individual differences emerge in the quality and intensity of responses of children as they adapt to divorce. Some children exhibit severe or sustained disruptions in learning rate and behavioral development, while others seem to emerge as competent well-functioning individuals.

There does not seem to be any particular kind of disorder produced by the divorce process; rather there is a range of possible reactions. Some speculation exists suggesting that boys are more vulnerable to the adverse effects of divorce than girls but the reasons for this difference have yet to be clarified. Probably the best documented variable in studying coping mechanisms to divorce is the child's age and developmental status at the time divorce occurs.

Development Status and the Effects of Divorce

Introduction

A child's reaction to divorce and his coping responses will vary with his or her developmental status. Despite a wide range of individual differences, certain common concerns emerge at the time of parental separation that can be related to developmental considerations and cognitive capacity. A review of the expected and typical reactions of children experiencing divorce at the developmental stages of infant, preschool, latency and adolescence reflects this developmental perspective.

Infants and Toddlers

Expectable reactions to divorce are defined by developmental level and the quality of the relationship with the parent remaining in the home (Jellinek & Slovik, 1981). The remaining parent is the mother in 90% of the cases. Infants and toddlers are highly sensitive to the mother's ability to function. In the only longitudinal study, Wallerstein and Kelly (1980) reported on 34 children who were followed for a year after divorce. Baseline levels of behavior were not well established but they found that 15 of these infants showed a regression in toilet training, increased crying, and greater dependency on their mothers to perform routine daily tasks. It appears that the sample of one parent children demonstrated less advancement in adaptive behavior as defined by self help skills.

Preschool and Young School Aged

The preschool and young school aged child (years three to five) is particularly vulnerable to the effects of family dissolution. This child's frame of reference has gone beyond mother to include the entire family. Unfortunately, since the average length of marriage is six and three quarter years, many children of divorce can be expected to fall in this developmental range. The young preschool child is dealing with issues of mastery over his environment. At this cognitive level the child is confused by the sequence of events and the length of the divorce process. He or she conceives of time in minutes or hours and generally uses an egocentric explanation for causation. This age child is very ready to accept responsibility and blame for happenings in the environment (e.g., "I am bad...if only I hadn't...then Daddy would be home"). These thoughts are usually substantiated by arguments between parents over the children. It is also common that preschool and kindergarten children fear disruption of nurturance and the possible abandonment by both parents.

Sometimes the working schedule of the custodial parent prevents their continuity of care. Wallerstein and Kelly's (1980) study of 11 children in this age group found them to show increased irritability, temper tantrums, and aggressiveness. It is believed that these children are angry because their view of dependability and predictability of relationships has been threatened. Teachers may notice the children experiencing difficulty with change in routines, rejection of substitute teachers when their regular teacher is absent, and some disruptive classroom behavior (especially on the part of boys) (Gardner, 1978).

School-Aged

School-aged children, ages six and seven, are more sophisticated and less likely to feel responsible for the divorce. Commonly, they will feel lonely and helpless and often experience poor academic performance. If the child misses learning some basic skills, school may continue to be difficult for years to come. Continued academic achievement problems will often support the child's negative view of himself. It is interesting that this age child is reported to frequently consider changing homes to see what life would be like with the other parent, and, possibly in an effort to reunite the family (Jellinek & Slovik, 1981).

Early Latency

Early latency children, ages seven and eight, are often preoccupied with a longing for the absent parent and may appear affectively depressed. This longing can be unrelated to the nature of the relationship between the absent parent and child before separation occurred. Children with previous poor quality parent-child experiences still continue to hope for reconciliation. This age group child was found to encounter the most trouble adjusting to divorce (Kelly & Wallerstein, 1976). Many report feelings of being helpless and depressed which can mean problems in achievement and peer relationships. Severely depressed children may demonstrate disturbances in sleep and eating patterns, social isolation and occasional suicidal ideas. An illustration, Drake (1981) reports that in a therapy group for children, an eight-year-old boy drew a bleeding heart expressing his sadness of not being able to get his parents back together again.

Late Latency

Later latency aged children, nine to eleven years old, are frequently very angry at one or both parents (Wallerstein & Kelly, 1980). Typically much of this anger will be directed at the parent perceived to have caused the divorce. In addition to the conscious, intense anger, half the children in this age group are reported to show a decline in academic performance and peer relationships. The study found no correlation between prior academic ability and the subsequent drop in achievement. Most studies of school achievement have been descriptive in nature and do not demonstrate to what extent lower pupil performance results from parental separation. Shinn (1978) reports that there are considerable differences in cognitive performance between large groups of 5th graders from one parent vs. intact families. On the California Achievement test there was from 0.2 to 1.6 years difference in achievement scores, from 0.2 to 0.9 standard deviation units in measured aptitude on the Otis-Lennon tests, and 0.8 difference between the 'B' and 'C' grade point average on the standard five point scale.

These data reflect the general trend of lower scholastic performance among children from one parent families. It is noteworthy that the achievement differences between one parent and two-parent families were most evident in low socio-economic status groups.

Adolescent

The adolescent's task is to gradually separate from the family unit and establish an adult identity. Divorce can disrupt this process as home may no longer be viewed as a place for daily contact and identification with both parents. A frequent defensive reaction is the adolescent's early engagement in adult activities. This has been termed "pseudo-maturity" (Sorosky, 1977), and may be expressed by sexual and aggressive acting out. These children are often seen entering into power struggles with teachers and challenging adult authority. Older adolescents generally use distancing and withdrawal from the home in this time of stress. They become increasingly involved in social activities to avoid the conflict at home. The older, more mature, adolescent is best able to approach the divorce discussions and be told the true nature of the marital conflicts. Unfortunately, this can create a burden on the child as he or she may feel responsible for the parent's emotional welfare. Certainly it is best for the parents to resist the temptation of having the adolescent serve to meet their own unfulfilled needs while experiencing divorce.

Closing Remarks on Developmental Stages

Information about the lasting effects of behaviors acquired at certain developmental stages is not yet available. However, many practicing psychologists report that certain symptoms endure through several developmental levels. In my own experience, an eight-year-old boy living with his father would significantly regress in speech articulation, self help skills, and began bed wetting for a short period every time he was forced to visit his absent mother. His parents separated when he was a young preschool child. Recall, however, that within a one to two year post-separation period, many children no longer exhibit these adverse reactions (McDermott, 1970). This eight-year-old boy was clearly in need of intervention.

In conclusion, Kelly and Wallerstein (1980), in their five year longitudinal study of 60 families and 131 children, have found no simple guidelines for recognizing divorce-related emotional or behavioral change in children. They have found that both in-school and out-of-school responses depend somewhat on the child's developmental stage, predisposing vulnerability of the child's personality, and the degree of conflict among family members during the divorce process (quality of family interaction before the separation, extent of turbulence during and after the divorce, and the emotional stability of the parent remaining in the home). Teachers reported that two-thirds of the children showed changes in school behavior and/or academic performance following the separation. It is important to note that no correlation was found between coping with responses seen in school, home, or in clinical interviews of these children. Assessment issues, consequently, become complex.

David Kieffer

Assessment

Identification

The school psychologist's major responsibility is to assist schools in educating children and to help them deal with or overcome possible academic or emotional obstacles which may prevent achievement of maximum educational potential. To this end, assessment is designed to indicate areas for remediation. The first step in assessment is identification of the population of students whose parents are experiencing a separation and divorce. In many cases, this calls for consultation with school administrators on school policy to aid in the identification process.

There are several factors which interfere with the identification of these students. Sometimes, it is the parents themselves who interfere. Many parents choose not to tell school professionals of a significant change in family circumstances because they may fear stereotyping their child and subsequently placing him or her at a disadvantage in the classroom. Some have great difficulty sharing such family information with a stranger, perhaps because they are uncomfortable speaking on such a personal topic. I have known parents who wait to see if the school "notices a difference" in the child's academic or behavior status before disclosing any information. Perhaps some parents may even remain unaware of the degree to which parental separation can effect a child in the school setting.

TABLE 1: Important Information for the School Regarding
Children of Divorce[1]

Child's Name: Date:
Who is Custodial Parent?
Date of Separation:
Date of Divorce:
When was the School informed of the separation?
By Whom?

Was Child having School problems before the Divorce/ Separation?

If so, same or different?
Clarify below if different in either degree of problem or type of problem.

What was the Child's initial reaction to the separation?

Through your observation in the School:
Through Child's spontaneous and voluntary report:
Through parent's report:

Does the Child have contact with the noncustodial parent?

How much? When?

What instructions have been given the School regarding its contact with (or inclusion or exclusion) of the noncustodial parent?

Have household circumstances changed significantly?
e.g., move, finances, stepparent, stepsiblings, parent working, etc.

Whatever the reason, school psychological consultation, influencing school policy in identification of these students, is indicated. Generally it is unnecessary for schools to be aware of the personal details of the separation. Instead, what the school needs to know is sufficient information to determine the type, degree, and appropriateness of reactions the child manifests. Important information for the school regarding children of divorce could be secured at registration time for new students or at the onset of new academic years. I like the format used by Drake (1981) which is useful for teachers at parent-teacher conference time. The questionnaire (see Table 1) is completed by the teacher with parent assistance. The questionnaire is followed by a behavior checklist identifying problems the child may be exhibiting in both academic and emotional areas (see Table 2). Teachers, guidance counselors, or school nurses may use the problem checklist as an aid in providing basic useful information about the separation. A few questions of a more personal nature are included (such as any parent-child problems or visitation information) because of the important implications they hold for the child and the possible carry-over effect into the school. The checklist can also be a tool to enhance parent-school communication which may prove integral for effective interventions.

TABLE 2: PROBLEM CHECKLIST[1] DATE:

	1 Many Problems	2	3 Some Problems	4	5 No Problems
a. Academic Performance					
b. Behavior at School					
c. Behavior at Home (if known)					
d. Expression of Feelings					
e. Relationship with Peers					
Same Sex					
Opposite Sex					
f. Relationship with Mother (if known)					
g. Relationship with Father (If known)					
h. Relationship with Teacher(s)					
i. Overall Adjustment					

What can be done in the school to help this child with the above problems?

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Referral Guidelines

Referring children who need additional help, beyond that which the classroom teacher can provide, is an important role of the teacher. It is unreliable to depend entirely on separated parents to attend to the subtle cues their children give to indicate that help is needed. Separated parents may not be aware of their child's problems because they may be preoccupied with their own personal difficulties. Parents experiencing the dissolution of their marriage often need to attend to so many aspects of their own lives that need restructuring, that unless the child blatantly express their needs, some children have to receive help elsewhere. There are also children who manifest no problem behaviors at home but do so at school. If the teacher interacts with the child before and after the separation, new problems can be identified quickly and, as a result, teacher support provided, or more direct psychological interventions can be arranged if needed. An unfortunate consequence of many separations is that the custodial parent must relocate and place the child in a new school district. This eliminates the teacher's opportunity of comparison between present and past school behavior. Knowledge of pre-separation behavior is very limited. In order to refer children for extra help, school professionals would do well to keep in mind three referral guidelines: type, length, and degree of the presenting problem.

Type

Certainly some reference to adjustment reactions at the various developmental stages is indicated so that the teacher, guidance counselor, or other school professional can judge whether a child behaves in a way expected for his or her age group. The referring person needs to be aware that while many child behaviors may be difficult to tolerate, there are some behaviors which are typical of certain age groups when children are experiencing the stress of separation and divorce. I have known many students to engage in behaviors which serve to elicit increased rates of teacher-student interaction as they seek to build a closer interpersonal relationship with the teacher. It is the behavior that is atypical for that age child which is of true concern. Behaviors considered atypical include: regression to an earlier stage of development, delaying with the same set of behaviors for a long period of time (seemingly unable to move beyond them), or advancing to inappropriate behaviors associated with older stages of development. Some case examples include a seven-year-old boy who would regress in language behavior by reverting to "baby talk" after visitation to his mother; a third-grade girl who would only choose to play with children at the first grade level - when they grew older, she simply made new friends who were in first grade; and an adolescent girl who became sexually active in response to her parents' divorce.

Length

The second referral guide is the length of time the child has manifested difficulty in encountering the stress associated with the divorce process. One helpful timeline from research studies is that most children required a year to resolve the divorce crisis. The teacher should be encouraged to document the duration of post-separation behavior changes. Since most students are assigned to new teachers as they advance in grade placement, communication between teachers is necessary and follow-up by other professional staff (e.g., counselor, principal, or school psychologist) is recommended.

Degree

School professionals can monitor the degree of problem behavior as the third guideline for the need of school psychological services. A thorough assessment is often indicated when children show signs of serious depression or explosiveness. Certainly a consultation is warranted if the student's behavior is of a magnitude that disrupts the learning environment and prevents effective classroom teaching. So too, is the case of a child who speaks of harming him or herself. Adam, et al., (1973) suggest that parental loss is an important factor in the development of suicidal tendencies in adolescents. Typical signs of serious depression are eating and sleeping problems (too little or too much), lethargy, moodiness, irritability, difficulty concentrating, flat affection, social isolation, and suicidal thoughts.

If a teacher has any questions as to whether a student needs additional help, it is advisable for them to share the concern with a school psychologist. It has been my experience that teachers have a wide range of tolerance to student behavior. In many cases, modification of the classroom environment and the contingencies operating therein, will meet the child's needs. However, cases exist where referral for further assessment of the problem is needed. Several assessment methods may by used by the school psychologist. The most comprehensive method available is the Divorce Specific Assessment (Kelly & Wallerstein, 1977) which investigates the history of the problem, the child's understanding of the problem, and support systems available to help deal with the problem.

Measurement

One approach to understanding children's school problems typically utilized by school psychologists has included an assessment on standardized test instruments. Standardized tools are not yet available in the measurement of the effects of the divorce process on children. Behavior checklists and behavior rating scales are of minimal utility since the referral statement and subsequent teacher interview are superior methods of identifying adaptive behaviors of concern in the school setting. A series of behavior observations and/or teacher data collection on behaviors of concern are preferable in determining the extent of the child's adjustment problem. Research on the Piers-Harris Self-Concept Scale, Junior-Senior High School Personality Questionnaire, and Sixteen Personality Factor Questionnaire has indicated that these tests bear little relationship to the child's adjustment reaction (McGinness, 1978). In short, there is no simple test instrument which can measure the child's affective and behavior change as well as a thorough history, clinical interview, and assessment of support systems. This assessment method investigates the capacities and strengths in the child and in his or her environment.

History

As in traditional assessment strategies, a determination of developmental achievements is completed. A brief history of information from parent and teacher regarding past academic and behavioral performance is compared to the child's current functioning. Based on the psychologist's direct observation of the child, one considers whether the child is, in fact, different than before the divorce and how that difference is occurring. In terms of academic achievement, data is collected that reveals whether or not the child is progressing at the same learning rate as in past learning experiences. This data can be used to estimate the effect of current stresses on the child. Standardized achievement tests are sufficient data in making these judgements.

Clinical Interview

I have found a focused interview, which investigates the child's responses to the divorce situation, to be extremely important in designing intervention plans. The school psychologist needs to explore what the divorce means to the child, his or her emotional responses, and the coping strategies employed. When assessing the child's private ideas and the nature and intensity of her feelings, I have found that children tend to go through the same basic stages. These stages are those listed in the standard loss model (Kubler-Ross, 1969), describing a sequence of reactions to a loss of some kind (e.g., death, changed image of oneself, or loss of family unity).

The first stage is denial. This occurs as the child chooses not to accept objective reality and builds a set of ideas that is more in keeping with the desired world than the real world. The second step is anger. During the anger stage the child frequently tries to strike out at those who are involved with the post-divorce situation. Some children engage in temper tantrum behavior, at times directed towards those who are perceived to take the place of parents, such as school personnel. This anger can take form in unproductive behavioral responses such as disruptive/non-compliant classroom behavior and deterioration of peer relationships due to aggressive play. When denial and anger do not resolve the stresses of divorce, children may enter the bargaining stage. While the behavioral manifestations of this stage are complex, the dynamics are relatively simple. The child's reasoning will fit a self statement such as, "If the denial did not make my reality come true, and if my anger did not cause people to behave the way I wanted them to, then maybe I should try to make a deal (usually not clearly defined), as my next form of manipulation." Typically the child blames himself for the divorce and may attempt to improve himself or herself so that the parents love him or her more. The hope is that parents will reconcile. Depression is the next stage. It is a form of learned helplessness and generally occurs when the child finds he or she cannot control (or even have a measurable impact on) the divorce situation that so directly affects his or her life. The child usually recalls past bad behaviors toward one or both parents, or may feel guilt about loss opportunities to be a good child. At any rate, the child feels helpless in being able to do anything to rectify these recalled events. Eventually, a kind of mourning about the family loss is evident. Frequently, children at this stage tell of the good old days (how much better things were) in comparison with the present. The final stage is acceptance. It occurs when the child learns that there is an objective reality that exists, and while perhaps not liking that reality, admitting that it is true. Here children should indicate a full understanding that they are not to blame for the divorce and that the outcomes of the parental relationship may not be in the child's control. A note of caution is offered, however. It is my experience that some children indicating this cognitive and affective stage still need assistance in learning new coping behaviors - behaviors which are more productive than those currently in the child's behavior repertoire. Simple acceptance of the divorce situation does not rule out the need for intervention.

A structured approach to clinical interviewing which is often used by school psychologists is the sentence completion test. I have found this instrument of some use in identifying problematic concerns in children. An instrument which has specific application to the interview of children from divorced families is the Children's Attitudes Toward Parental Separation Inventory (Berg, 1979). This instrument has applicability because it taps six factors measuring subtle attitudinal and affective responses to separation and divorce. It is composed of 70 yes - no statements related to factors of: fear of abandonment, self blame, paternal blame, maternal blame, hopes for parental reunification, and peer ridicule and avoidance. Validity and standardization of this instrument is very tenuous at present. However, clinical utility is considerable. School psychologists using this inventory can tentatively but efficiently assess problematic attitudes needing change.

School psychologists need to be mindful that all children find separation and divorce a stressful event. Overall adjustment is often determined by the emotional climate in the child's home environment. This can be assessed to some degree by parent interviewing. The child can also provide valuable information in this regard as the psychologist investigates three general themes. First, try to assess whether the child has feelings of being used as an informant. Parents sometimes intentionally and sometimes unintentionally use their children as informants on the activities of the other parent. When placed in such a situation, the child is in a bind because to comply with the request of one parent is to reject the other.

A second general theme is the case where the children have parents who degrade each other. When the child frequently feels that his parents deprecate the worth of each other, this is usually based largely on fact. A parent will often degrade the other parent in an attempt to confirm his or her own innocence and to establish a coalition with the child. The adversary relationship of most divorce hearings confirm this and the granting of custody symbolizes innocence of one parent to some children. This can present a very confusing set of thoughts and feelings to the child since very rarely is it reality that one parent is totally to blame; leaving the other totally innocent.

A final theme which has proven fruitful in my clinical interviewing is the child's feelings of increased responsibility. Some children, often boys, feel they must fill the role of the absent parent. They feel a need to help more around the house and also fulfill the custodial parent's emotional needs. This may result in what has been termed the "parental child" (Kelly & Berg, 1978). These children often take on great responsibility for care of siblings. The child's emotional well being is very closely tied to that of the emotional status of the custodial parents. Particular difficulties may arise with these children if the custodial parent begins dating.

Finally, it is often helpful to assess the child's degree of understanding of his unproductive responses, if any (e.g., truancy, delinquence, or low achievement). It has been my experience that children who possess a fundamental understanding of the consequences their behavior elicits, generally demonstrate behavior improvement at a faster rate than those who don't. They also stand a higher probability of improving through consultation efforts rather than requiring direct contact with the school psychologist.

Support Systems

The third step of the Divorce Specific Assessment method is an evaluation of the child's support systems. Data can be gathered from various sources. In the time of family disorganization, emotional support may be coming from the continued parent(s)-child relationship, siblings, extended family and peers, religious advisors, and extracurricular or community activities. Of course, school personnel should be expected to play a major role in terms of persons the child may rely upon for emotional and behavioral guidance.

One way of measuring support systems in children is the use of projective drawings. The family drawing can indicate what alliances exist among siblings and the separated parents. It is not uncommon for a child to draw some siblings with one parent and other siblings on the other side of the page with the other parent. I have also known children to draw two pictures of their "two families" or to insert a significant extended family member. As with all projective assessment, these drawings need to be used in conjunction with other sources of data to reflect an accurate study of the child. The school psychologist would want to know how the remaining parent is able to care for the child's basic needs and whether that parent is emotionally accessible to the child in times of need. Consideration should also be given to obvious stressors such as whether the child is particularly vulnerable to the stress of divorce due to other stress producing losses or whether he or she is the object of an ongoing custody battle. Court ordered psychological custody evaluations provide a wealth of data relating to support systems.

The assessment process as outlined, is designed to reveal the scope of a child's adjustment problems around the divorce issue, sensitize the school psychologist to emotional and attitudinal responses which may be problematic, and determine the extent to which current support systems can be modified to facilitate the child's academic, behavioral and emotional functioning. A broadening of traditional measures in this manner may suggest unique approaches for intervention.

Intervention Alternatives

It is important to emphasize at the onset that there is hardly a person who could not benefit from therapeutic intervention of some kind. This is true of behavioral interventions because we all demonstrate situationally inappropriate behaviors at times. This is also true on the affective level, as we all could profit from a warm, accepting relationship with an objective and sensitive individual willing to discuss our problems with us. There are children who will require intervention for successful adaptation to the divorce process, however. The focus of this section is to address the population of children who are not adapting well to the stress of divorce and require treatment. These interventions can be applied to all children experiencing separation and divorce but will be especially relevant to those showing adjustment problems based on the school psychologist's assessment.

Certainly, a comprehensive assessment of adjustment problems related to a divorce would be useful if not tied to intervention strategies. Intervention design depends on each child's unique needs. The school psychologist knowledgeable in a variety of intervention alternatives, can devise such a treatment. Treatment alternatives may address the child's current adjustment reactions as well as prevent further problems. Broad goals of intervention include: Helping the child adjust to the new family; adjusting to any changes that occur at school as a result of family change; providing the child with additional coping strategies in his or her behavior repertoire; and increasing the perceived distance between the child's problems and the parents' problems in order to bring the child's concerns into a manageable perspective. These objectives are discussed at three levels: Direct services to children and their families, indirect services in which consultation and inservice are offered to parents and school professionals, and preventative work with classrooms of children.

Direct Services

Divorce adjustment counseling may be offered so that the child and/or his or her parent(s) have direct access to the school psychologist. Such goal directed counseling focuses upon discrete divorce-related attitudes and emotions identified in the assessment process. Counseling intervention, either implemented or formulated by the school psychologist, is indicated when the child's existing support systems do not meet his or her affective needs. Some children have an intense desire to resolve divorce-related feelings, but, upon investigation of adults in the environment, have little access to persons able to discuss these feelings with them. Perhaps the most important aspect of counseling children of divorce is that of setting realistic expectations. School psychologists who expect to use counseling as a method to "save" children from the discomfort of divorce are quickly disillusioned. In addition, counseling may improve attitude, affective responses to divorce, concentration and general behavior but there is no guarantee of these changes. Counseling is designed to change thoughts and feelings. If specific behaviors need to be changed, behavior management intervention is preferred. Most commonly, a combined approach using both methods of treatment is best. Counseling intervention can take three forms: individual, group and family counseling.

Individual Counseling

Individual counseling is generally reserved for those children demonstrating unproductive coping behaviors over an extended period of time. One should think of the child needing one-to-one counseling sessions as the child who cannot work well in a group setting. Since groups are more cost-effective, they are generally a preferred intervention approach. However, some children are deficient in the inter-personal and social skills necessary for effective group work. It is also conceivable that children requiring a high degree of focus upon their specific divorce-related concerns will not be cooperative in group settings. I do not think that counseling will be productive with children under the age of five years. Individualized counseling also may be contraindicated when the child's family members fear this intervention approach and communicate a high degree of mistrust of the school psychologist to the child. The family's desires and expectations with respect to intervention are a useful guide in determining which intervention(s) stands the greatest likelihood of success.

The standard loss model is a helpful guide when seeking a child individually for counseling. Hozman and Froiland (1976) have proposed such a model for counseling latency-aged children. The model is tied directly to assessment of the five stages of loss: denial, anger, bargaining, depression, and acceptance. Children may not experience these stages in their prescribed order and may be dealing with the issues of various stages simultaneously. However, the school psychologist can help children to effectively deal with the emotional and cognitive issues involved in each stage of the model.

In the denial stage, children are typically withdrawn and tend to isolate themselves from ongoing activities in the environment in order to maintain their fantasy that the divorce has not really occurred. As such behavior persists, the child does not develop in terms of interpersonal or social skills. The school psychologist's aim is to enable the child to recognize and express his or her true feelings about the divorce. The child should understand that these feelings are acceptable. A combined approach of directly confronting the child about the divorce and convincing parent(s) and teachers to demand social interaction will help the child work through denial. It has been my experience that a simple explanation to parents and teachers regarding the potentially unproductive nature of a child's social avoidance behavior serves to strengthen adult expectations that the child engages in social behaviors. These adults will generally provide more direct cues for the child and be more specific as to the expected target behaviors. In extreme cases it may be necessary for the school psychologist to conduct specific social skills training with a child (Goldstein, et al., 1980).

It is during the anger stage that children demonstrate non-compliant or aggressive behaviors. In counseling sessions, the child is encouraged to recognize the anger he or she feels toward the divorce. Some theorists advocate for the expression of such, channeling it in cathartic ways such as hitting a punching bag. This technique has not been substantiated in research, however. Probably most important at this stage is for the child to recognize that he or she is angry with the family change and not necessarily at any particular individual. It is best to restrict the expression of anger to counseling session. It would be a mistake to permit aggressive behavior in other settings and risk having the child learn that aggression is acceptable behavior. The child's angry feelings are acceptable; the aggressive behaviors are not. The child receives reinforcement for expressing his feelings but is not reinforced for their accompanying behavior.

In the child's attempt to have parents reconcile, the forms of manipulation he or she uses are part of the bargaining unit. Many children demonstrating chronic adjustment problems function at this stage to some degree. The child perceives him/herself as an arbitrator and thus creates situations which he or she believes will reunite the parents. The child may do this by failing in school, engaging in delinquent behavior, or construct other situations which are likely to raise the concern of both parents. In this way, the parents must interact and address the child's problem jointly. During this stage, counseling serves to help the child recognize and accept responsiblity for his or her behavior problems. It is helpful, but not essential, for the child to recognize the private motives behind his or her bargaining behavior. It is most important that consequences are consistently applied at this stage.

When attempts for reconciliation are futile, the child enters the stage of depression. Again, it is helpful but not essential that the child discovers the source of the depressed feelings. When counseling, it is advisable to confirm the child's ownership of these feelings. Along with goal setting for appropriate behaviors, the child is reassured that this mourning process is temporary and can be changed. The child should be encouraged to form new relationships and resume social activities. Glasser's (1969) reality therapy counseling technique allows the child to establish his or her own goals, plan behaviors to implement them, and examine potential consequences. Reality therapy is applicable at all stages of the grieving process.

The final stage is acceptance. At this stage, the child recognizes the reality of the divorce regardless of whether he or she likes it and does not allow the divorce to effect his or her worth as an individual. With individual counseling, children learn to identify and cope with difficult feelings (such as guilt, blame, and anger) and direct their thoughts and feelings to behavior which is socially acceptable. The reader will note that the individualized counseling approach to intervention is mixed with behavioral philosophy. In my experience, the counseling approach is effective in modifying thoughts and feelings. However, the school psychologist would increase the probability of behavior change if some intervention effort is directed to the applied analysis of behavior.

There is no research in the professional literature testing the efficacy of individual counseling with children of separation and divorce. Interviews of psychologists doing this type of treatment reveal the duration of counseling varies a great deal as do the reported behavior changes. All clinicians report a desirable change in a child's affect as a result of counseling treatment.

Group Counseling

A direct service to children of divorced or separated parents is group counseling. Cohn, et al., (1963) describe group counseling as "a dynamic interpersonal process through which individuals within the normal range of adjustment work within a peer group with a professional trained counselor exploring problems and feelings in an attempt to deal with developmental problems" (p. 355-356). Notice that the group approach is directed to children "within the normal range of adjustment". Children who stand to benefit from group work are those who have sufficient interpersonal social skills to effectively interact with their peers. The child's peer group reaction to his participating in the group is a good measure of whether or not he has sufficient social skills. In addition to the child's existing social skills, membership in groups should be based on the age of the child and the severity of his adjustment reaction. Latency-aged children and adolescents typically seek self-discovery and self-affirmation through their peer group interactions and desire group counseling. Some individuals who mistrust adults are not good candidates for individual counseling, but can function well in groups because of their need for peer group validation. Prescriptive interviewing with the child and observation of his or her social behavior will aid in the decision to include him or her in a group. It is not uncommon for a child to work very hard to convince you, the teacher, or a reluctant parent to let them join a divorce group.

On group composition, it is best to hold the number of children in the group to between five and eight. Less than that detracts from the commonality in their divorce experiences and more than that will not allow children enough opportunity to share their concerns. My groups have been most effective when of heterogeneous composition. It is beneficial to have children of both sexes and those experiencing various phases of the divorce process. It is advisable, however, that group members be able to sit still, listen to peers, and trust them enough to communicate their divorce experience. Groups are not designed for aggressive, acting out children. If a child becomes a behavior management problem for you in the group, perhaps behavioral intervention should be conducted in the child's classroom and home environments. At any rate, it is wise to limit group membership to children who are not displaying severe adjustment reactions. In addition, group members should be allowed to draft new members from among their classmates. This will usually happen when a parental separation occurs with parents of a classmate or transfer student. Incidentally, the children's referral system usually acts with greater speed and accuracy than the school's referral system.

Divorce groups are a popular treatment alternative because of their cost-effectiveness and multiple benefits. The basic benefit of the group is the development of individual problem solvers capable of applying their new skills at both home and school. Groups can serve a preventative function. In addition, a more subtle communication process based on peer modeling is part of the group process. Each member is at a different stage of adjustment to divorce. Some children are adjusting to a recent separation, others to relocation, parental dating, visitation problems, and so forth. Yet, for each group member, there is another who has experienced the same dimension of divorce. This commonality of experience fosters the modeling of various thoughts, feelings, and behaviors.

Techniques vary among professionals but most agree that sessions should be held weekly for 20 to 30 minutes for elementary age children. Sessions are generally structured for the consideration of one performance objective and this period of time is adequate without overtaxing attention spans. Older adolescents may participate for up to one hour. Group techniques for making the abstract issues of divorce appear more concrete will make sessions most meaningful to children. The application of such techniques takes both planning and flexibility. Planning involves structuring a session around a particular performance objective. Flexibility involves spontaneously exploring ideas that emerge during the session.

Generally, one attempts to be more concrete with younger aged children. Your approach must be geared to the child's level of cognitive development. A combination of techniques can be used to achieve concrete illustration of complex divorce issues. Brainstorming in combination with role playing and role rehearsal are often used. These techniques are important for the process of re-education, during which children learn how to clarify and act out their feelings.

When a group member expresses a problem or concern, the group brainstorms regarding the possible solutions to the child's dilemma. When a possible solution is found, the children role-play and rehearse on the specific behaviors required for goal attainment. An example will illustrate:

Tim was unhappy about having to share his father every weekend with his father's girlfriend. Tim felt that it was unfair that he could never be alone with his father. He told the group that every weekend he felt like an unwanted stranger in his dad's apartment. Tim admitted that he was jealous of the girlfriend, but he felt he could be less jealous if he had some private time with his father. The children brainstormed this dilemma, and as usual came up with a long list of possible solutions.

The group decided that Tim should make an appointment to see his father and express his desire to get some private time. Tim and the group decided that two hours per week, eating out or working on hobbies, with Dad alone would suffice for the private time. Then the group moved into action. Tim chose a member to play his father, and gave the member directions on how to act like his Dad. The role playing began with each member concentrating on the action. Not only were the children seeking to critique and revise the scene, but they were storing the information for a time when they might use it. The scene was played and replayed until Tim was comfortable with letting his father know his desire for private time together. The group even chose to role play and rehearse a scene between Tim and the girlfriend. In the scene, Tim told the girlfriend how bad he had been feeling about the weekend visits.

At the next session the children were anxious to review the results of Tim's meeting. Their efforts were rewarded. Tim's conference with his Dad was successful. His request for private time was granted, and Tim's father admitted that he was also feeling bad about their growing estrangement. Tim's father expressed surprise at Tim's ability to ask for what he wanted in such a mature manner. The interview with the girlfriend was also successful. It turned out that she understood a lot about Tim's feeling because her parents divorced when she was eight.

The group's time and effort were reinforced. The role playing served to increase Tim's social skills. Role rehearsal had desensitized Tim to the anxiety of having to act on the problem. The brainstorming had fostered problem-solving ability and generated excellent communication among group members. Books, videotapes, puppets, and drawings may also be introduced to help children examine complex problems in concrete ways. Specific techniques and counseling objectives in childrens' divorce groups have been developed by Green (1978) and Wilkinson and Bleck (1977). These sources integrate the above ideas and the reader may turn to them for further reference.

Cantor (1977, 1979) introduced group counseling for third through sixth graders to provide immediate crisis intervention and ongoing peer support for children of recently divorced families in a New Jersey school system. During the sessions, children shared mutual concerns based on the book, The Boys and Girls Book About Divorce (Gardner, 1970). Discussion objectives were: eavesdropping, spying, loyalty issues, experiencing parent conflicts, parent absence, and visitation and custody arrangements. She notes that one group of children developed a play illustrating how families fight, separate, resolve relationships, and form new ones.

Evaluative information shows that teachers noted minimal behavior improvement in the target behaviors which led to selection of students for group participation. However, children had good group attendance, spoke favorably on the experience, and expressed a desire to continue the group.

In my experience this is a predictable outcome of group intervention. Counseling groups generally resolve the child's confusing thoughts and feelings but do not necessarily change behavior. This is because the counseling approach is specifically designed to alter thoughts and feelings with little specific provision for behavior change. Behavior change may result, however, as the child is helped to redirect mistaken behavioral goals.

In a similar group counseling program (Wilkinson & Bleck, 1977) children from recently divorced families received assistance in recognizing their troublesome thoughts and feelings about divorce. Program evaluation was based on subjective questionnaires completed by the children who received counseling. All the children liked being in the group, and most wanted it to continue. Eighty percent of the respondents said they learned more about their feelings and the feelings of other group members. No information showing behavior change was collected, although 75% believed the group made some difference in the way they acted outside the group session. Further evaluative research on group counseling effectiveness is clearly needed.

Family Counseling

There are several good reasons why school psychologists should consider engaging in family counseling to treat the effects of divorce on children. Despite education or counseling for parent or child, in some instances, post-divorce discord and contention continue to occur. Visitation controversy is a typical illustration of ongoing family discord which impacts upon the child. In these situations, resolution of the family conflict, by dealing with the family members, can be important. Counseling with the child may be ineffective if the situation within the family continues to present major emotional obstacles for him or her. These are the families where parents are physically separated but remain emotionally attached through continual fighting. There is a strong tendency for the child to be placed in the middle of such conflict, forcing him or her to indicate loyalty to one parent at the expense of rejecting the other. Another reason for engaging the family, is for the school psychologist to achieve a more objective perspective on the child's problems. It is not uncommon for children to engage in fantasy about their home situation or about an absent parent. Children will often tell you what they wish rather than what is. With necessary information from other family members, the psychologist can separate fantasy from reality in order to facilitate the counseling process.

When addressing a child's emotional needs in post-divorce counseling, it is helpful to view the family unit as follows:

> "A post-divorce family is still a family, and a family by any definition is a unit of intimate, interdependent relationships. Even though the man and woman are no longer husband and wife, they are still, and must be, mutually dependent upon one another, in very practical ways, as father and mother to their children. This mutual dependence is shared, in turn, by the children in their relationships with their parents, and the whole unit of interdependent relationships is psychologically irreducible and inseparable" (Grate & Weinstein, 1977, p. 46).

Also, for developmental purposes, children need contact with both parents and should be entitled to such if at all possible. Wallerstein and Kelly's (1980) findings substantiated the need to keep children involved with both parents. They claim the absent parent can continue to be responsible and concerned for the well being of their child if involved.

In California (Wallerstein & Kelly, 1977) a program has been developed for children of preschool age through adolescence and their parents. The program is aimed to help the family during the family transition and minimize adjustment problems for the child. During the initial four to six sessions, family members are counseled individually and then are counseled together for the two final sessions. Evaluative information showed that infants and preschoolers, intervention was only beneficial when counseling the parents. Direct counseling and play therapy had no effect on young children. Data based on child, parent, and teacher reports showed their intervention was effective in improving the affective and behavioral adjustment of school aged and adolescent children.

In a similar treatment model, the Children Facing Divorce project in Colorado (Magid, 1977) conducts family counseling. The purpose is to "not only extend the knowledge base about children of divorce but also apply the knowledge through family intervention about benefits both for the single parents and their children" (p. 534). During a six week program, families met for one hour sessions and, in addition, children attended group counseling. Techniques such as discussion, role playing and videotapes were applied to issues deemed important by family members. Counseling goals were: to provide a safe, nonthreatening atmosphere for parents and children to express feelings; to provide help to the family restructuring itself; to teach effective communication skills; and to provide a group experience for children in developing peer relationships. Short-term evaluation showed changes in communication patterns among family members. Children reported significant emotional relief and experienced reduced levels of stress related to divorce. However, minimal behavior change were observed by parents and teachers.

In conclusion, many factors should be considered when deciding which, if any counseling approach to use. Counseling is directed toward a child's emotional development and facilitates problem solving skills which apply to the post-divorce situation. Data evaluating such interventions confirm beneficial cognitive and affective changes as a result. Behavior in the home and school may or may not improve in response to divorce adjustment counseling.

Indirect Services

Indirect services are efforts by the school psychologist including consultation and inservice to persons present in the child's environment. The school psychologist can effect positive changes in knowledge, behavior, and attitude of persons who routinely interact with children coping with separation and divorce. At the current ratio of students per school psychologist, it is impractical to expect every child experiencing divorce adjustment reactions to receive direct services. The school psychologist can, however, indirectly serve large numbers of children by working through teachers, parents, and other professional school personnel. In addition, consultation influencing school policy and curriculum can directly improve mental health of the children we serve. Indirect services of this nature can also be preventative to help reduce the probability that children experiencing adjustment problems will require direct service.

School Professionals

Increasing the effectiveness of school professionals is an important function of the school psychologist. School professionals need to know how to help children through the adjustment process of separation and divorce. When teachers, counselors, nurses, and principals acquire additional knowledge and skills for helping these children, they become important resources.

Drake (1979) has conducted teacher inservice programs. From the starting point - the teacher's ability to notice outward emotional manifestations - a comprehensive presentation of didactic knowledge and interaction skills are introduced. Inservice objectives include: the extent of the problem for children from divorced parents; the effects of the child in school; guidelines for identification of children needing intervention; how and when to intervene; and suggestions for working with the parents. To increase awareness, inservice emphasis is placed on how the teacher's personal values influence their relationship with the child who has experienced parental separation. A focus is placed on nonjudgemental interactions with these children and their parents. A particularly beneficial element of this model inservice program is that teachers were able to plan interventions for children in a workshop fashion.

Interventions can take place anywhere in the school and at any time. Informal consultative interventions seek to increase emotional support for children coping with divorce. Being supportive means raising the child's self esteem and being affectively available as much as possible within the teacher-student role. This can be a teacher's willingness to listen to a child's concerns, being sensitive to the child's loss (such as on Father's Day or Mother's Day), and including single parent families in classroom discussions. Essentially, most of these informal teacher interventions can be conceived in terms of increasing the child's rate of positive reinforcement. Teachers and other school personnel may indeed sustain a child's appropriate behavior and help them cope by making sure that the child receives praise and approval on a schedule equivalent to the pre-separation period. This may mean the child should receive high rates of reinforcement at school during post-separation since, conceivably, his or her reinforcement schedule will be thinned at home during this time. In addition, the normal adjustment reactions of these children are accompanied by behaviors which are less likely to be reinforced than child behaviors which would have normally occurred outside of the divorce experience. This behavioral perspective can readily be seen in Kelly and Wallerstein's (1977) conclusion regarding the school setting.

> "Many youngsters found some support within the school setting because their attitudes and performance in school provided accustomed gratifications which they were able to sustain in the face of divorce stress. Further, the attention, sympathy, and tolerance demonstrated by numerous teachers, who had been informed about the divorce, was sustaining to a number of children feeling emotionally undernourished at home... Teachers became a central stable fixture in the lives of several children in the months following the separation; in some cases, the only stable figure in these childrens' environment" (p. 34).

In consultation with teachers it may help to have them understand some basic knowledge about reinforcement schedules. The teacher's application of positive reinforcement can aid children of divorce in the classroom. Behavior analysis of a child's peer relationships may also reveal a decrease in peer support due to lower levels of reinforcing peer interaction. It may be beneficial for teachers to pair children of divorce, who do not mention or allude to their family situation, with children open and willing to communicate their experience. I have had children tell me they feel "different" from peers subsequent to their parents' divorce. Daily peer interactions frequently remind them of their "differentness", serving to elicit internal negative and stressful feelings. In this sense, peer interactions become aversive. This pairing and grouping of children of one-parent families can be reinforcing events for children who perceive their peer environment in this way.

The efficacy of formal behavioral consultation has been well documented. Behavior management is indicated for children demonstrating troublesome school behaviors over an extended period of time. It is advisable to first attempt informal consultation of the nature previously mentioned. This is because many children who show behavior problems due to separation and divorce will slowly improve after an initial period of adjustment. Formal behavioral intervention, including data collection and environmental change (Bergan, 1977) is reserved for behaviors resisting informal treatment effects for up to one year after parents separation.

Chadwick and Day (1970) applied systematically scheduled positive reinforcement to 54 7th and 8th grade Indian students for a 14 week period. All students were experiencing separation and divorce. Reinforcement was earned for academic performance and appropriate classroom behaviors. Results showed a significant increase in academic growth and a significant reduction of disruptive classroom behavior (incompatible with learning). In addition, post-treatment data one year later, showed that these effects were durable. It appeared that students were able to establish appropriate classroom behaviors which were maintained by naturally occurring levels of positive reinforcement.

In addition to consultative efforts offered to teachers, the school psychologist may prove helpful to other professional personnel. Such indirect services as the modeling of childrens' divorce groups for school counselors can be valuable. These counseling groups are somewhat different than standard guidance services. In conducting these groups, school psychologists can help counselors understand that: their own feelings about divorce will influence the nonverbal messages communicated to children; concrete activities are needed to illustrate the abstract issues of divorce; it is essential that blamelessness issues be reiterated for the child; and time is required before negative feelings are resolved and new behavioral goals established. Group counseling is a complex behavior. Modeling is probably the best way to teach such behavior. When conducting groups with co-professionals, I have found that group leaders generally learn a great deal from one another.

Parents

Some indirect interventions for parents include conducting workshops explaining childrens' adjustment reactions to divorce or educationally oriented parenting programs. MaGrab (1978) found that the way parents cope during times of stress strongly influences how their children cope. School psychologists can be instrumental in helping parents help their children by offering parenting skills training courses (Hall & Nelson, 1980). Intervention with parents becomes the treatment of choice with young school aged and preschool aged children.

Most often, we first encounter parents when their child is referred to the child study team. Mindful that parental coping ability is critical in determining child adjustment, school psychologists need to possess adequate sensitivity in professional interactions with parents. Recognition of a child's adjustment problems related to divorce can be especially painful for the single parent. It is professionally inappropriate to communicate that the parent take responsibility for the child's transitional stress. Too often, our expectation for parents experiencing a divorce is that they be patient and attend fully to the child's needs. This is not an easy task since some parents may also be experiencing transitional stress. When parents separate, school psychologists can help inquiring parents understand the basic information their children need to have. However, our expectations for parental ability to respond to our recommendations should remain flexible. One should assess parental competency when considering a consultative intervention in the home.

It is typical for children to have minimal or inaccurate perceptions regarding the divorce of their parents. A list of books for parents, available in the local library can assist them in clarification of divorce issues with their child. In some cases, I have found parents who have avoided a relevant discussion about their divorce until their child begins to show signs of emotional upset. Despert (1953) proposes that if the child is showing behaviors suggestive of transitional stress, the parent is already late in helping the child. In fact, Silvern and Yawkey (1974) found that children who were emotionally prepared did not show as significant adjustment reactions as those who were not. There are several guidelines that are important in explaining divorce to children. It may be helpful for school psychologists to relate these guidelines to parents requesting such information. The following are suggestions which are appropriate in most, but certainly not all, cases.

1) There is trouble between the parents. The adult doesn't have to explain this in detail, the child will not understand. Simply explain that mother and father no longer choose to live together.

2) Some things are wrong, but not everything. Only the parents disagree. The child is still wanted and loved.

3) The child is not to blame. He or she has done nothing wrong and the parents love him or her just as much as ever. The divorce is not the child's fault and the child can do nothing to reconcile the parents.

4) Assure the child more than once. Most children will not learn all the information the first time it is shared.

5) Avoid slighting the absent parent. This will only encourage resentment and anger in the child; not only toward the absent parent, but to the remaining parent as well as other social contacts.

6) Tell the truth. The child needs to trust you now more than ever and will not be able to do that if you tell tales that will not come true.

7) Give the child an opportunity to express his or her fears. Encourage questions about aspects of the divorce the child does not understand. Many children express their fears in this way.

8) One does not always have all the answers. You are not sure and need the child's help so that together you can adjust to the new living arrangement.

9) Don't make value judgements. The child has enough difficulty adjusting to the divorce and does not need to feel his or her responses and feelings are being evaluated in terms of goodness or badness.

10) Focus your responses to the child in a positive manner. Be continually reminded of your child's need for praise and approval for good behavior. You will find many beneficial returns to this approach.

Parents need reassurance that their child is not alone. It helps them to understand that even though their child is experiencing difficulties related to divorce, most children return to their normal selves in time. In fact, some even benefit. If the child needs direct intervention, the parent needs to know that their child is ultimately responsible for his or her own behavior. Intervention simply means that we will be responding to the child in ways that will encourage behavior improvement.

There are parents who may request behavioral consultation from the school psychologist in order to alter troublesome child behaviors in the home. It is reasonable to assume that in reaction to the stress of divorce, a child attempting to retain security with his or her parent(s) will display behaviors that elicit nurturing parent behaviors. According to Gardner (1956), security is gained by withdrawal, aggressive behavior, regression, or feigning illness. Developmental regression and apparent illness directly elicits parental nurturing responses and the child is reinforced for these behaviors by feeling the parent still loves him or her. By withdrawing or being aggressive the child avoids the possibility of rejection. However, the child is often reinforced for undesirable behavior. This occurs because the parent, sensing the child's affective distance (something a parent in emotional distress does not need), responds by attending to their child's behavior with increased caretaking responses. The child and parent are actually encouraging one another's undesirable behavior by virtue of their own emotional needs. It is the role of behavioral consultant to interrupt typical parent responses to the child's undesirable behavior and substitute these responses with appropriate parenting consequences.

An additional service to parents is referral to appropriate outside agencies or self-help groups. Parents Without Partners, Inc., is a striking example of a self-help organization that makes a meaningful contribution toward post-divorce adjustment. By providing socially acceptable substitutes for some of the amenities of married live and stimulating new growth and social patterns, it is able to neutralize, to some extent, the solitary character of divorce. With nearly 1,000 chapters and approximately 150,000 members, 85% of whom are single through separation or divorce, its outreach has been impressive (Parks, 1977). Primarily through social activities, rap group, informal discussions and conversations, the organization provides both custodial and noncustodial parents with the companionship, advice, and moral support of others who are similarly situated. Parents Without Partners also sponsors educational programs and attempts to provide role models for children. The need for role models, male or female, is generally most pronounced when access to the noncustodial parent is limited. In such cases, Big Brother or Big Sister programs can be of value by making these available on a continuing one-to-one basis.

The self-help group model typically does not include specific education, goal-directed counseling, or prescriptive therapy as part of its concept or practices. As a consequence, Parents Without Partners is not designed to help parents explore and deal with the feelings of their children, other than at a relatively superficial level. Nonetheless, I believe that important needs are met, coping strategies are learned, and practical information is shared in such groups. Research to evaluate the effects of such self-help groups on parents and children has not been undertaken, but the outcome of these programs is reportedly positive by those who participate in them.

School Policy

School psychologists are in an ideal position to consult with school administrators on the psychological implications of school policy affecting children of divorce. One policy change is the gathering of demographic information, identifying children experiencing parental separation. Drake (1981) has clarified ten major issues affecting children of divorce with which the school administrator must contend. These involve school territorial rights, parental access to school records, release of the child from school, school visits, medical emergencies, financial responsibility, the child's surname, retention, confidentiality of records, and parental access to school functions. The reader is referred to her analysis of the legal and psychological parameters related to these issues.

Kohn (1979) reports the effort of a California school system in meeting the needs of its single parent children which composed 90% of total student enrollment. Inservice training was offered to school staff regarding the special needs of single parent children. Also, school staff were made available to parents in the evening, after working hours for conferences. Parent education classes were offered at convenient times. One school system has even made it possible for divorced parents to meet on Sunday evenings to discuss mutual parenting concerns (Saiter, 1979). The school psychologist aware of the needs of one parent families can influence school administrators to change policies to more closely meet these needs.

Prevention

Preventive forms of indirect intervention are directed to groups of children not yet experiencing the stress of separation and divorce. The purpose of this treatment mode is to circumvent adjustment reactions in both length and severity.

Holdahl and Caspersen (1977) applied a preventative program, designed to help elementary aged children with inevitable family changes, to schools having more than 35% of their students in one parent homes. The approach is grounded in theory which teaches children to perceive accurately how another person is feeling and then predict the behavioral response of that person. The child is then expected to adjust his or her behavior according to anticipated consequences from others. Children met for five consecutive sessions. Objectives included: awareness of different family structures; coping responses to inevitable family changes; skills in handling family conflict; and expressing feelings. Techniques of discussion, self disclosure, role playing and constructing clay figures were vehicles to help children develop the coping skills for successful adjustment to family change. Evaluative information is not yet available.

Other preventive approaches include school psychological consultation on curriculum. Kohn (1979) reports of a school system where a social awareness program, involving issues related to divorce and children of divorce, is incorporated into the regular social studies curricula. Another example of curriculum modification, designed for high school students, is a workshop about children of divorce taught in education for life classes. The workshop uses role playing and films to stimulate discussion.

A preventive suggestion for teachers which may be helpful is the inclusion of various family types in classroom media and discussion. Classroom guidance through the school guidance counselor is a popular approach in the elementary grades. Exposure to issues of separation and divorce could provide a form of primary prevention for students who might later experience family conflict as children, or later as parents. In addition, books should be available to help children identify feelings and develop coping mechanisms around separation and divorce. The Journal of Clinical Child Psychology (1977) provides an annotated bibliography of books available.

In considering the range of intervention alternatives, it is clear that further research on the effects of various treatment strategies is needed. Generally, a combination of interventions is best. A child's unique set of needs and existing support systems in the environment usually points to intervention at several levels. For example, counseling may be indicated to meet the child's affective needs, behavior management for improvement of school behaviors, and parent consultation to permit successful implementation of these. It is my belief that divorce is difficult for many children, but not all. Children can learn adaptive coping strategies for dealing with crisis applicable to future situations. Regardless of whether the intervention is of a preventative or reparative nature, children can be helped to grow through the divorce process.

Monitoring Methods

Wallerstein and Kelly's (1979) longitudinal study of sixty divorced families highlights the need of post-intervention follow-up. After a five year period following divorce: 34% of the children had regained or acquired a sense of well being and confidence; 29% percent had resumed age-appropriate developmental progress but were reporting intermittent sadness; and 37% were judged to be suffering from a moderate to severe depression. These children and their families had received a variety of counseling interventions.

Monitoring the coping responses of children adjusting to divorce is a difficult task. As in Wallerstein and Kelly's investigation, it is important to consider the child's "phenomenology" of the divorce experience. For this understanding, the school psychologist should conduct a personal interview with each child receiving intervention.

Diagnostic interviewing should be provided routinely for the purpose of assessing the form of intervention most likely to be beneficial and for the child's (or the family's) response to the intervention. Here, the school psychologist is measuring consumer satisfaction and testing the child's affective response to treatment. This is most applicable for children receiving counseling intervention directed toward emotional needs. For children receiving group counseling, an inventory or group process may be used for post-intervention measurement (see Table 3). When the object of intervention is the modification of attitudes or cognitive restructuring, readministration of the Children's Attitudes Toward Parental Separation Inventory is helpful. The school psychologist may also wish to interview the child to detect remaining misconceptions in viewing his or her divorce experience.

The five stages of the standard loss model could serve as a structural guideline when interviewing a child about whether or not he or she has achieved acceptance of the divorce. In addition, the child can serve as an informant on the emotional climate in his or her home when measuring one's attempt to consult with parents on parent-child interactions. Parent data collection on behaviors will verify the child's report.

TABLE 3: Group Process Inventory

1. This group has helped me to understand other people's feelings better.

1	2	3	4	5
Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

2. This group has helped me to understand my own feelings better.

1	2	3	4	5
Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

3. This group has helped me change how I act outside the group.

1	2	3	4	5
Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

4. I liked being in this group.

1	2	3	4	5
Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

5. One thing I learned by being in this group is ______________________
____

6. One thing I didn't like about being in this group or something I would like to change about the group is ______________________
____

Cases of behavioral interventions are more amenable to monitoring methods and post-intervention follow-up. Formal behavior management consultation is, by definition, data-based. Data on target behaviors will be available during treatment and should be used to judge treatment affectiveness. This data can be collected by the teacher or parent on target behaviors or by direct observation of the child in the treatment setting. A "return to baseline" condition after treatment has been successfully applied and terminated, is highly recommended.

When children are evaluated by child study teams, pre-and post-intervention data may be available on the child's academic competencies. The school psychologist would do well to monitor the child's attainment of age-appropriate academic skills. This information, in combination with teacher reports of classroom performance and grades, will serve as a measure of learning rate. This is a particularly important follow-up method when academic achievement is part of the original concern as stated in the reason for referral.

I prefer to supplement behavioral and self report data with teacher, parent, and sometimes, peer reports of the child's current level of functioning. Sociometric data are an important outcome measure of the child's overall adjustment and specifically, the attainment of social skills. The child's ability to gain acceptance and reinforcement from peers is a critical variable in maintaining appropriate socialization behaviors. When intervention approaches are directed toward social skills development (through counseling groups or specific social skills training), sampling peer group reactions toward the child is usually a sensitive and reliable outcome measure.

It is unfortunate that techniques measuring a child's reaction to divorce are notably weak. Monitoring methodology relies heavily upon the school psychologist's clinical interviewing skills. Some standardization of issues relevant to post-separation adjustment is being developed on the Children's Attitude Towards Parent Separation Inventory, but better evaluation tools are needed. The school psychologist must recognize that the tracking systems to monitor interventions are determined by the original purpose of the intervention. For example, counseling services directed toward affective change require some measure of affective outcomes. Time lines for post-intervention follow-up can be flexible, but should occur as long as one to two years after the child's parents have separated. Intermittent follow-up of the child's level of functioning is recommended for children receiving indirect as well as direct interventions. It may also be necessary for the school psychologist to monitor the adjustment of children experiencing separation and divorce who receive no services at all to insure that problems do not develop for them. Periodically asking a teacher to observe and report on student behavior can identify the need for psychological services.

Conclusions and Considerations

The role and function of school psychology is largely determined by local, state, and federal regulations. Many practicing school psychologists devote their time exclusively to special education eligibility and servicing special education programs. We are often discouraged from doing much else.

Time and effort on expanded role functions such as group and family counseling, educational programs for parents and school staff, and consultation on school policy may be responsibilities in addition to our standard case load. The initial effect is that we will be doing more and working harder. Perhaps we need to extend our efforts on special projects such as these in order to convince administrators and consumers that these functions are a valuable element of comprehensive school psychological services.

It is hoped that school psychologists will incorporate information on the effects of divorce into their current roles. This can begin when evaluating the problems of a child who has experienced parental divorce and developing meaningful intervention alternatives for teachers and parents. By helping school officials to see how divorce-engendered stress compromises a child's learning potential, we begin to raise general awareness, not only the problems inherent to the child, but to the school psychologist's competency in treating these problems.

The purpose of this paper has been to change the school psychologist's conception of divorce as well as raise competencies in assessment and intervention. To reiterate, divorce is not a discrete phenomenon for children but a process with pre-, transition, and post-separation effects. It is the emotional climate in a child's environment and his or her access to emotional support (positive reinforcement) which determines the child's adjustment. Perhaps much of the literature on children of divorce ought to be retitled, "Children of parental conflict". "Although there is general public agreement that divorce is damaging to children, there is question as to whether it is the divorce or the marital conflict that does the damage" (Leupnitz, 1979, p. 82). The point at which we tap into the sequence of events and environmental influences of stress associated with divorce will modify our view of child adjustment.

To think of children of divorce as a group with similar behavioral characteristics, as is often done with learning disabled, mentally retarded, or emotionally disabled children, is erroneous. It is true that children cope with loss by experiencing similar stages and that developmental considerations determine, to some extent, a child's behavioral manifestations in response to divorce. However, the range of individual child reactions are broad. Keep in mind that parental divorce may be the best alternative to poor family relationships and may offer the child opportunity for personal growth. There is a wide variety of effects which family dissolution can have on children. Divorce is an external event (not an internal affliction) and children react to the emotional consequences and behavioral contingencies of their changed environment. Divorce is a change and while all change is stress inducing to some degree, it does not have to be a destructive experience.

The profession of school psychology has both the opportunity and the responsibility to direct research efforts in the area of divorce as it effects children. In fact, the National Association of School Psychologists is considering such an effort. Almost all of the available data on the coping responses of children and related intervention effects has been gathered on white, middle-class populations (Heatherington, 1972). Special groups within the general population, such as ethnic groups, only children, and children whose parents are involved in custody litigation should be examined carefully. Children having particular vulnerabilities or competencies (those staffed into special education programs) may require specially designed forms of psychological intervention. School psychology should capitalize on research to these groups of children affected by separation and divorce.

School psychologists have been asked to rethink many of the traditional concepts of divorce. We are beginning to recognize the potential impact of family dissolution on a wide range of child behaviors. It appears that the signficant social change in attitude toward family life will eventually cause changes to occur in our role and function. "We need to become the most dedicated students of family dynamics" (Guidubaldi, 1980, p. 379). Because our profession's central role is to promote the healthy adjustment of children, we need to devise school-based services which compensate for the declining support of children in the family. A society which increasingly facilitates must also make provision for services required by children and parents following parental separation. In so doing, we will continue to meet our primary responsibility - helping all children function at the level of their highest potential.

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Diet and Behavior: Is There a Relationship?

George M. Harper

Abstract: A selective review of the literature was made assessing the effects of diet/nutrition on behavior. The effects of dietary deficits such as malnutrition, hunger, and vitamin and mineral deficiencies were reviewed. Dietary excesses such as the consumption of excessive refined carbohydrates, toxic heavy metals, allergens (especially foods), and salicylates were found to be important causes of psychological problems. Dietary treatments such as nutritional supplementation, nutrition education, chelation of lead, and allergen elimination were found to be variously effective. Research problems and clinical assessment procedures were reviewed. Suggestions for a multimodal assessment, including dietary variables, of psychological problems were made.

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Introduction

Psychologists are usually engaged in the discovery and study of the conditions which affect human behavior. The various academic specialities in the field of psychology often limit the classes of variables which are examined (e.g., physiological, cognitive, social), but clinical and school psychologists (along with psychiatrists) are unique in their holistic view of the factors which influence behavior (Pruyser, 1979, p. 1). The effective diagnosis and remediation of learning and behavior problems requires knowledge and analysis of the many elements which are known to affect human functioning. Lazarus (1971b, 1973, 1976) and others (Keat, 1979; Mayron, 1978; Swidler and Walson, 1979; Williamson, Anderson & Lundy, 1980) have advocated a multimodal or multifaceted approach to the analysis and treatment of psychological disorders. Arguing that behavior therapies have been too narrowly focused which often results in client relapse, Lazarus (1971a, 1971b) has advocated technical eclecticism, the use of efficacious techniques regardless of their theoretical basis, and multimodal behavior therapy (1973, Chap. 1). He believes that lasting change in behavior is a function of combined strategies and has developed an acronym, the BASIC ID, which represents his view of the important modes of personal functioning. The acronym stands for behavior, affect, sensation, imagery, cognition, interpersonal relations, and drugs. The drug modality, however, has begun to evolve to include other aspects of biological functioning including diet (Gerber, 1979; Keat, 1979; Lazarus, 1978). The purpose of this paper is to examine the importance of diet/nutrition as it affects human behavior through a selective review of the psychological, educational, and health sciences literature. To be sure, diet is only one of the important modalities to be investigated in understanding psychological problems, but rarely does it receive adequate attention in psychological assessments. In a later part of this paper, the results of a statewide survey of Iowa school psychologists will be presented which will strongly suggest that the effects of diet on behavior are frequently underestimated and misunderstood.

Most of the literature dealing with diet and behavior has appeared in the medical literature and has not been routinely available to psychologists. However, interest was rekindled in nutrition and psychiatric disease by Pauling (1968) who proposed the study of the optimum molecular environment for the mind. This approach has been called orthomolecular (ortho - right or correct, molecular = molecules) and involves the provision of optimum molecular concentrations of substances normally found in the human brain. An example of the practice or orthomolecular psychiatry is the restriction of phenylalanine in the diets of persons afflicted with phenylketonuria. Another example is the provision of vitamin B_3 (niacin) for patients suffering from the dementia accompanying pellagra. Orthomolecular practitioners generally limit the prescription of psychotropic drugs (which usually consist of substances not normally found in the brain). Thus, alternatives in diet play a major role in orthomolecular psychiatry. The theoretical basis for this approach appears to be sound in view of the research which has demonstrated that brain neurotransmitter levels can be directly influenced by the consumption of dietary precursors (Wurtman, Cohen, Fernstrom, 1977).

Serotonin, acetylcholine, dopamine, epinephrine, and norepinephrine levels have been found to be a function of dietary precursor levels (Strain 1981). Pauling (1968) also finds support for his theory in basic genetic and biochemical research.

Further support comes from research indicating that mental symptoms are often the first signs of vitamin deficiencies (Pfeiffer, 1975), and sometimes may precede more obvious "physical" symptoms by months or years (Strachan and Henderson, 1965). Recently, Hall, Gardner, Stickney, LeCann, and Popkin (1980a) found that 46% of lower socioeconomic class patients seen at a psychiatric reception center were suffering from physical illnesses (many of which were diet related) that caused or greatly exaccerbated their psychiatric symptoms. Most of these patients, had they not participated in the research, would have been placed in a mental hospital with no medical examination. Hall has also recently edited Psychiatric Presentations of Medical Illness (1980b) which examines numerous "physical" illnesses, many of which are diet related, which are frequently incorrectly diagnosed as psychiatric disease.

In spite of the evidence supporting the formulation of Pauling's theory, claims for the efficacy of certain orthomolecular treatments have not convinced the medical establishment of their usefulness (e.g., American Academy of Pediatrics, 1976; Megavitamin and Orthomolecular Therapy in Psychiatry, 1973). The first orthomolecular, sometimes called megavitamin, therapy research involved double-blind studies which were carried out from 1952 to 1962 by A. Hoffer (1962) and his associates which found large doses of vitamin B_3 with electro-convulsive therapy (ECT) to be more effective in treating acute schizophrenia than the ECT alone. In reply to criticisms of this work, J. Hoffer (1974) and H. Hoffer and Osmond (1976) have pointed out that replications have used chronic schizophrenics and discarded the use of ECT and, therefore, have not been true replications. The controversy is far from settled, and there are signs of lack of objectivity on both sides of the issue. However, orthomolecular theory has been very valuable in the sense of challenging the traditional approaches to mental problems. There is a growing body of interesting research which is demonstrating very succinctly that what we eat can affect our behavior, our moods, and our ability to learn. The following is selective, not exhaustive, but should adequately illustrate what is known about various aspects of diet and behavior and the directions of future research.

Dietary Deficiencies

Malnutrition

A diet-behavior problem which does not appear to receive much attention in clinical practice in malnutrition. There are many studies which seem to show the devastating effects of protein and calorie depravation which occur early in the development of mammals (Saadeh, 1974; N. Smith, 1975). Martin (1973) has reviewed a large number of animal and human studies and concluded the following: (1) the central nervous system of a fetus is seriously affected by prenatal undernutrition; (2) undernutrition in early infancy has permanent effects on the growing central nervous system; (3)

undernutrition after one year of age does not permanently affect the attention, concentration, or learning of a child; (4) retarded and brain damanged children do not grow well; (5) poor growth may also be associated with socio-cultural factors such as neglect, abuse, or deprivation; (6) central nervous system damage may be the result of protein-calorie deprivation during periods of rapid brain growth; (7) adequate nutrition must be provided for those children whose learning and attention are adversely affected by undernutrition; (8) dietary histories of children must be evaluated within the context of family eating-behavior patterns. Latham and Cobos (1971) have proposed that early malnutrition which contributes to lowered intellectual functioning may not be due so much to brain damage as it is to the child's lack of energy to explore, attend, and learn. Lester (1975) has used cardiac habituation of the orienting response to auditory signals to measure attention and learning in 13 month old Guatemalan children of varying degrees of malnutrition. These studies found substantial attentional and learning deficits in the malnourished as compared to the well-nourished infants.

Tizard (1974) has provided an excellent review of research on the effects of malnutrition on mental development. He points out the metholdological problems in many of these studies, one of which has been the finding that when the families of malnourished children are matched with controls of the same social, economic, and educational backgrounds, the malnourished children have not received the same amount of stimulation in their homes as did the controls (Cravioto & De Licardia, 1972, pp. 73-94). Tizard (1974) also points out the interesting similarities between human genetically retarded families and subsequent generations of experimentally malnourished laboratory rats. In spite of some conflicting findings and methodological problems, this author concluded that social action to prevent malnutrition should certainly not be delayed.

Numerous other reviews of malnutrition and mental and physical development exist (e.g., Brozek, 1978; Dodge et al. 1975; Scrimshaw & Gordon, 1968), but the message is generally the same--early malnutrition adversely affects brain development and function. Semi-starvation in well nourished adults does not appear to affect intellectual or sensory functions, but adversely affects motivation, social responsiveness, and motor functions (Keys et al. 1950).

There is evidence that special populations may be at higher risk for developing nutritional problems than the general populations from which they are drawn. Thatcher, Lester, Monroe-Lord, and McAlaster (1982) report a study of a cross section of school children in the eastern United States where they found significant negative correlations between the amount of refined, low-nutrient foods in the diet of children and their I.Q.s and reading and math achievement levels. These relationships were found after adjusting for the covariates of race, age, sex, and socioeconomic status.

In another study of adult psychiatric patients and normal subjects, a strong relationship between the adequacy of diet and pathology as measured by the Minnesota Multiphasic Personality Inventory (MMPI) was found (Weinberg, Mandel, & Miller, 1979). Using a sophisticated dietary interview and scoring procedure, the authors conducted a multiple regression analysis comparing various dietary scores, MMPI scores, and demographic variables.

They found that two measures, Dietary Intake and Refined Foods, reflected the overall quality of diet and best predicted MMPI scores. They also found that the higher the Dietary Intake and the lower the Refined Foods in the diet, the lower the pathology in the MMPI scores.

Gauge and Ekvall (1975) found 24% of a sample of children and adults seen at a large university center for the developmentally disabled to have inadequate diets. They found low ascorbic acid (vitamine C), iron, and flouride intakes, borderline quality of protein, and feeding difficulties to be major problems for this population.

Wernicke's encephalopathy and Korsakoff's psychosis have been found to be caused by a thiamine (vitamin B_1) deficiency induced by excessive alcohol consumption (Strain, 1981). Confabulation and loss of recent memory are hallmarks of these diseases which often respond to treatment with supplemental thiamine.

Springer and Fricke (1975) have reviewed the research dealing with some of the drugs commonly prescribed for developmentally disabled persons and their effects upon nutritional status. Increased amounts of vitamine D, calcium, folic acid, and vitamin B_{12} may be necessary for those who are taking anticonvulsant drugs. Ritalin may be associated with growth retardation via appetite suppression in children. These authors found no effects of tranquilizers and antidepressants on nutritional status. A more exhaustive and generalized review of drug induced nutritional deficiencies may be found in Roe (1973, 1976).

Other nutritional problems which are of concern but have not yet been firmly linked to behavior problems include the ingestion of large amounts of sugars by children (e.g., Morgan, Zabik, Coal, Leveille, 1980), milk intolerance in a large proportion of American Black children and other groups (Paige, Bayless, & Graham, 1972), thiamine (vitamin B_1) deficiency in Down's Syndrome patients in spite of an adequate diet (Reading, McLeay, & Nobile, 1979), and the possible existence of unrecognized or undiscovered essential nutritional substances (e.g., Slonim, Borum, Tanaka, Stanley, Kasselbag, Green, & Burr, 1981).

Hunger

A summary of the Iowa Breakfast Studies which were conducted primarily during the 1940s and 1950s has been published by the Cereal Institute, (1962, pp. 57-59). The omission of breakfast was found to significantly reduce physiological and psychological performance in the late morning hours. Attitudes and school performance were poorer in students who omitted breakfast. Investigations showed that adequate amounts of breakfast protein (20-25 gm) were needed to maintain blood sugar above the fasting level in the late morning hours. Less than 15 gm of protein were found to be insufficient to maintain blood glucose levels and alertness in the late morning.

Another recent study has demonstrated the importance of maintaining blood glucose levels for adequate mental functioning. Lapp (1981) studied the effects of low and high blood glucose levels on the learning of noun paired-associates in 11th grade students from a large urban high school.

The students were matched for academic status and were divided into high and low glucose levels according to pre-trial feeding and blood measures of glucose. The high glucose group outperformed the low glucose group on both high and low imagery noun pairs.

A similar finding in the previously cited Weinberg et al. (1979) study of MMPI correlates of dietary factors was that the inclusion of breakfast in the diet was significantly correlated with low depression scores. Thus, the importance of a good breakfast in maintaining blood glucose and mental and psychological alertness is underscored by these studies. The mechanisms and psychological correlates of blood glucose levels will be further explored in the section on hypoglycemia.

Specific Vitamin Deficiencies

Although severe vitamin deficiencies in the United States may be rare (Strain, 1981), Pfeiffer (1975, Chap. 1) believes the dietary habits of the populus are poor and that subclinical deficiencies (those which do not produce all the classical deficiency symptoms) are rampant. Dakshivamurti (1977) explains that primary vitamin deficiencies are caused by dietary conditions, but secondary deficiencies can be caused by any of the following: (1) impaired intake, due to peptic ulcers, biliary dysfunction, metabolic disturbances associated with pregnancy or food allergies, mechanical factors, or chronic alcoholism; (2) excessive excretion as in diarrhea, vomiting, profuse sweating, or dialysis; (3) competition from malignant cells; (4) antivitamines in the diet (e.g., raw fish contain an antithiamine enzyme); (5) malabsorption from disease or genetic conditions; (6) or certain therapeutic drugs. Causal links between vitamin deficiencies and behavior have been clearly linked to some of the "B" vitamines (Strain, 1981). Reviewed above were the effects of thiamine (B_1) deficiency in Wernicke-Korsakoff syndrom. The classic symptoms of severe thiamine deficiency are known as beriberi and include nervous disturbances (Pfeiffer, 1975).

Vitamin B_3, or niacin, is associated with the deficiency disease pellagra (Strain, 1981). The symptoms of pellagra are know as the three "Ds" and include diarrhea, dementia, and dermatitis. Apathy, depression, anxiety, memory deficits, and hyperirritability are the behavioral symptoms of interest to mental health workers (Strain, 1981). A. Hoffer (1973) has noted that up to 10% of the "schizophrenics" in southern mental institutions were pellagra victims who were cured by adding vitamin B_3 to their diets. R. Green (1973) has estimated that 3-5% of the general population may be experiencing subclinical pellagra which involves the symptoms of apprehension, depression, fatigue, headache, hyperactivity, hypersensitivity, and/or insomnia.

Vitamin B_6 (pyridoxine) has received much attention recently and is an important part of more than 50 enzyme reactions (Strain, 1981). Deficiency of this vitamin may be induced by drug therapy in tuberculosis and in women taking oral contraceptives. The symptons are largely behavioral and may include depression, euphoria, tremor, and other behavioral symptons. Strain (1981) cites a study in which 17% of a group of depressed patients were found to be deficient in pyridoxine (Nobbs, 1974). Sloane and Chow (1964) demonstrated that vitamin B_6 deficient rats fail to learn to avoid punishment or to learn a simple behavior to acquire a reward.

Several studies by a group of researchers investigating vitamin B_6 in hyperactive children deserve special attention. The first studies (Coleman, 1971; Greenberg & Coleman, 1973) established that indirect measures of serotonin were low in both organic and functional hyperactive children. The next study (Bhagavan, Coleman, & Coursin, 1975) confirmed the earlier findings of low serotonin in hyperactive children and that administration of oral doses of vitamin B_6 increased the blood serotonin significantly when compared to a placebo. Interestingly, blood levels of the vitamin were the same for the hyperactive children as they were for matched control children. In the final study (Coleman, Steinberg, Tippett, Bhagavan, Coursin, Gross, Lewis, & DeVeau, 1979) a double-blind crossover experiment was carried out comparing the effects of pyridoxine, methylphenidate (Ritalin), and placebos on a small sample of hyperactive children. These children also had low levels of blood serotonin and had previously responded well to Ritalin treatment. Mothers, fathers, and teachers rated the behavior of the children and all rated the vitamin B_6 period and the following placebo period (indicating carryover effects) as superior to other placebo periods and to the Ritalin period. The authors theorize that the pyridoxine increased the rate of serotonin production from tryptophan (an essential amino acid).

Another very interesting series of studies with vitamin B_6 has been carried out with autistic children (Rimland, 1973; Rimland, Callaway, & Dreyfus, 1978). In double-blind crossover studies, these researchers found significant behavior improvements in carefully diagnosed autistic children who were placed on large doses of vitamins and minerals. Vitamin B_6 appeared to be the most effective ingredient in effecting positive changes in these children.

Strain (1981) has reviewed the effects of folate or folic acid deficiency. The symptoms are largely psychological and include insomnia, memory problems, apathy, irritability, depression, psychosis, delirium, and dementia. Deficiencies are common in institutionalized psychiatric patients and supplementation improves but does not cure the psychoses. Mentally retarded children, women on oral contraceptives, and alcoholics are among the groups in which folate deficiency has been found (Pfeiffer, 1975, Chap. 11). Pfeiffer (1975, Chap. 11) warns that folate supplementation must be medically supervised because of complex interactions and side effects associated with large doses (above 5 mg) of this vitamin.

Vitamin B_{12} deficiency often presents initially with behavioral or mental complaints (Pfeiffer, 1975, Chap. 11; Popkin, 1980), and it has even been proposed that the psychological symptoms may predate the physical symptoms of pernicous anemia by several years (Strachan & Henderson, 1965). Pfeiffer (1975, Chap. 11) summarizes the thinking of several researchers in concluding that many psychiatric patients are vitamin B_{12} deficient and would respond favorably to supplementation.

Vitamin C, ascorbic acid, has received much public attention since Pauling (1970) published his controversial hypothesis that large doses of this vitamin are relatively non-toxic and can be effective in preventing infections. However, vitamin C may also be important in behavior disorders. Pfeiffer (1975, Chap. 10) found large doses of this vitamin to have an antianxiety or sedative effect as assessed by changes in subjects' electroencephalograph (EEG) recordings. Hall (1980a, Chap. 3) reports that a deficiency of vitamin C can cause depression. Finally, Kubala and Katz (1960) found a significantly higher I.Q. in students with high blood vitamin C levels as compared with students whose vitamin C levels were low. When the low vitamin C students received supplemental citrus juices for several months, thier vitamin C levels and I.Q.s rose significantly.

Mineral Deficiencies

Warkany and Petering (1973) have demonstrated the devastating effects in the offspring of experimentally zinc deprived pregnant rats. When the mothers were deprived of zinc for only six days early in their pregnancy, almost 9% of their offspring had brain malformations. Others have found that when zinc was low in the blood of mother rats, their tissue stores were not mobilized, thus depriving the fetuses of this important trace mineral (Hurley, Garvan, & Swenerton, 1971). Pfeiffer and Braverman (1982) have reviewed the role of zinc in brain growth and function. Zinc is an important constituent of many enzymes in the brain, is needed for transport of biochemicals in the nerve cells, and has been implicated in several behavioral disorders. Krischer (1978) found depressed zinc levels in learning disabled, hyperactive, and retarded children when compared to normals. He also found elevated copper (which competes with zinc) levels in a group of autistic children. Krischer (1978), Pfeiffer (1975, Chap. 16), and Pfeiffer and Braverman (1982) report that copper excess can accompany zinc deficiency and cause psychological symptoms.

Calcium is important to nervous system functioning and may be important in preventing the accumulation of the neurotoxin lead (Lederer & Bing, 1940: Pfeiffer, 1975, Chap. 32; Six & Goyer, 1970). There is evidence that lead and calcium compete at neuronal sites (Silbergeld, 1977).

Magnesium is, like calcium, a major mineral in the human body and a deficiency often occurs with a calcium deficiency (Edwards, 1980). Likewise, magnesium and calcium, when deficient, can cause similar psychological symptoms: irritability, psychosis, organic brain syndrome, depression, anxiety, and restlessness. Thus, both minerals should be examined when a deficiency is suspected in either.

Reviews of other mineral deficiencies and their behavior effects can be found in Pfeiffer (1975) and Edwards (1980).

Dietary Excesses

Sugar and Hypoglycemia

Hypoglycemia is a lower than normal concentration of glucose or sugar in the blood (T. Green, 1981). There are several kinds of hypoglycemia, but the most common (70% according to Ensink & Williams, 1974) is idiopathic or functional, wherein no organic disease can be demonstrated (Finestone & Wohl, 1970. A blood sugar level of less than 50 mg/dl when accompanied by symptoms has been the arbitrarily agreed upon demarcation of hypoglycemia (T. Green, 1981). However, others have tested for mental symptoms at higher blood glucose levels and found symptoms occurring above 50 mg/dl indicating that hypoglycemia is not an all-or-none phenomenon (Hale, Margan, & Rabak, 1981; Lapp, 1981). Individual variances in symptoms accompanying low blood sugar are evidenced in the findings of Hofeldt, Adler, and Herman (1975) in which half of their sample of 25 patients had blood sugar levels below 50 mg/dl with no accompanying symptoms. T. Green (1981) advocates the use of a five-hour oral glucose tolerance test (CGTT) and, most importantly, a history of symptom onset two to five hours after eating.

Tintera (1969) has described a condition called hypoadrenocorticism or subclinical Addison's disease in which the adrenal glands have become weakened, usually through prolonged stress, and are unable to produce the glucose regulating steroids (and the mineralosteroids and 17-ketosteroids) which results in a form of hypoglycemia. Functional hypoglycemia may be caused by faulty timing in the release of insulin after eating and may represent an early stage of diabetes (T. Green, 1981).

In a study comparing African laborers, African students and Europeans, it was found that the Europeans were more reactive to a glucose load than the African students, who were more reactive than the African laborers (Wapnick, Wicks, Kanengoni, & Jones, 1972). These researchers also examined the daily diets of the African groups and found a much higher proportion of refined carbohydrates in the students' diets than in the laborers'. They have concluded that as people change from primitive to modern diets, they are exposed to high proportions of refined carbohydrates which probably is responsible for sensitizing the insulin producing beta cells of the pancreas and for increasing the chances of developing diabetes. As previously cited, (Morgan et. al., 1980) the consumption of sugar in children ages five to 12 now averages well over 100 pounds (134 gm/day) each year, which contrasts with the five to ten pounds per capita per year consumed 100 years ago (Pfeiffer, 1975, Chap. 39). If this line of reasoning proves to be correct, we may see an increase in the incidence of diabetes and reactive hypoglycemia as the per capita consumption of refined carbohydrates increases (e.g. Yudkin, 1974).

Organically caused hypoglycemia can result from tumors of the pancreas, post-operative gastrectomy, pituitary dysfunction, excessive exogenous insulin, excessive alcohol consuption, or other conditions (Pfeiffer, 1975, Chap. 39). The substitution of gin and tonic for a lunch-time meal has been shown to cause reactive hypoglycemia in otherwise health subjects (O'Keefe & Marks, 1977). Insulin-induced hypoglycemia in laboratory rats has been shown to significantly interfere with the acquisition of an avoidance response (Neideffer, Davis, & Travis-Neideffer, 1980). The results of severe childhood hypoglycemia are well documented and include ataxia and other neurological disorders (Ingram, Stark, & Blackburn, 1976), lowered I.Q. scores later in life (Pildes, Cornblath, Watten, Page-El, Menza, Merritt, & Peeva, 1974), and brain damage and mental retardation (Ansley-Green, 1981). Organic brain dysfunction in adults has been also linked to the development of hypoglycemia after removal of part or all of the stomach (Hofken, Leichter, & Reich, 1975).

Buckley (1979) has reviewed the research on the mechanisms by which repeated acute hypoglycemia affects the brain limbic system and causes psychological symptoms. A conditioning effect occurs after repeated episodes of hypoglycemia which exaggerates and aggravates any emotional symptoms which may be present. Thus, personality disorders have been associated with reactive hypoglycemia (Anthony, Dippe, Hofeldt, Davis, & Forsham, 1973). Ford, Bray, and Swedloff (1976) studied a group of 30 patients diagnosed by their physicians as hypoglycemic. They administered the five-hour glucose tolerance test and the MMPI to each patient. No relationship was found between degree of hypoglycemia and severity of pathology on the MMPI. Twenty-one of the patients had blood glucose levels below 65 mg/dl, the others were normal or had a typical diabetic curve. However, the MMPI results were remarkably similar for both groups, suggesting that a certain personality type (hysterical or obsessive) may be more likely to be referred for or diagnosed as hypoglycemic. Anthony et al. (1973) however, argue that the hypoglycemia is a causal factor in the development of a hysterical personality.

A recent study by Hale et al. (1981) found significantly more mental confusion as measured by increased time on the Serial Sevens test during the glucose tolerance test. The slowest times coincided with the nadir of the glucose tolerance test.

Two interesting studies by Bolton deserve special scrutiny (1973, 1976). The subjects of his studies were the Qolla Indians of Peru who have been characterized as some of the meanest and least likeable people on earth (Pelto, 1967). Bolton (1973) calculated that over 50% of the adults in the village of 1,200 he studied had been involved in a homicide as an agressor or a victim's family member over a 25 year period. Fighting, stealing, damage to crops, refusal to pay debts, and threats were other categories of frequent aggression among the Qolla. After sorting through several possible causes of the Qolla's highly aggressive behavior, Bolton emerged with the hypothesis that hypoglycemia was the underlying factor. He examined the diet of the Qolla and found high consumption of alcohol, dietary deficiencies, and coca chewing which, together with the stresses of overpopulation, poverty, and high altitude hypoxia, predispose these people to hypoglycemia. He tested the hypothesis by administering glucose tolerance tests to 67% of the adult males, each of whose aggressiveness was systematically rated by village leaders. A significant curvilinear relationship was found between degree of hypoglycemia and aggressiveness. The mildly hypoglycemic were found to be more aggressive than the severely hypoglycemic. Bolton (1973) explained the smaller relationship between severe hypoglycemia and aggression as due to the more sever physically debilitating symptoms experienced by these subjects making them less able to engage in aggressive behavior. Furthermore, he hypothesized that the anger and aggressiveness in the milder cases became an apparently conditioned response because it stimulated hormones which acted to raise the blood sugar via hepatic gylcogen stores. Thus, the aggressive behavior is reinforced by the subsequent rise in blood glucose.

Bolton's second paper (1976) answers the criticisms of reviewers of his first study and presents further data on the hypoglycemia-aggression hypothesis. Using the same subjects who participated in the first study, the author administered a Sentence Completion test and measured levels of fantasy aggression relative to glycemic condition. A strong biserial correlation was found between total hostility scores and glycemic condition, further supporting the association of low blood sugar and aggression. Buckley (1978, 1979) has provided a more detailed neurophysiological theory explaining the relationship between hypoglycemia and aggressive behavior.

There is much controversy in the medical community over the prevalence and importance of psychological symptoms resulting from hypoglycemia (for the case against hypoglycemia see: Cahill & Seldner, 1974; Hofeldt, 1975; Yager & Young, 1974; for the case for hypoglycemia see: Bovill, 1973; Luyckx & Lefebvre, 1971; Permutt, 1976). However, the literature reviewed above strongly suggests that hypoglycemia can affect learning (Lapp, 1981; Neideffer, et al. 1980), mental performance (Hale, et al. 1981) and may predispose hypoglycemic subjects to aggressive behavior (Bolton, 1973 & 1976).

Recent studies have found a significant relationship between anger and other refined food consumption and behavior problems. Prinz, Roberts, and Hanzman (1980) found that high levels of dietary sugar were associated with increased aggressiveness and restlessness in hyperactive children and increased activity in normal non-hyperactive youngsters. Two previously cited students (Thatcher et al., 1982; Weinberg et al., 1979) found significant relationships between high refined food intake and low I.Q. and psychopathology. In view of the increasing sugar intake of children (Morgan et al., 1980) psychologists are well advised to consider sugar metabolism when attempting to understand deviant behavior. A general overview of the problem of hypoglycemia and its biochemical mechanisms may be found in Pfeiffer (1975, Chap. 39), while a much more technical explanation may be found in Ensink and Williams (1974).

Lead

The problems associated with lead poisoning have existed for thousands of years and have been implicated in the downfall of the Roman Empire (Gilfillan, 1963). Classical toxicity from lead poisoning has usually been associated with blood lead levels greater than 60 micro gm/dl and may include the symptoms of encephalopathy, lethargy, somnolence, convulsions, manic behavior, persistent vomiting, ataxia, delerium, stupor, and coma (Edwards, 1980). Mental retardation may occur in 25% of the children following lead poisoning, and nearly 100% may be expected to develop permanent brain damage after two or more such episodes (Bryce-Smith, 1972).

Recently, researchers have turned their attention to subclinical levels of lead and the effects these levels may have upon behavior. Carson, Van Gelder, Karas, and Buck (1974) have demonstrated that lambs exposed prenatally to maternal blood lead levels of 34 micro gm/dl were significantly slower in learning visual discrimination problems than were low lead exposed controls. High lead levels in the deciduous teeth of a large sample of first and second grade children with no signs of classical lead poisoning were found to be associated with lowered Wechsler Intelligence Scale for Children-Revised (WISC-R) Full Scale and Verbal I.Q.s and with attention deficits (Needleman, Gunnoe, Leviton, Reed, Peresie, Maher, & Barrett, 1979). Likewise, Pihl and Parkes (1977) found elevated lead and cadmium levels in hair samples of learning disabled children as compared to normal controls.

Depressed Wechsler Intelligence Scale for Children (WISC) and Wechsler Preschool and Primary Scales of Intelligence Performance (WPPSI) I.Q.s were found in a group of high blood lead (240 micro gm/dl) children living near a lead-emitting ore smelter as compared to similar children with lower blood lead concentrations (Landrigan, Whitworth, Baloh, Staehling, Barthel, & Rosenblum, 1975).

David and his associates (David, Clark, Voeller, 1972; David, Hoffman, Sverd, Clark, Voeller, 1976) have clearly shown a significant number (50-60%) of a sample of hyperactive children had raised blood lead levels and/or raised urine levels after a dose of a lead chelator when compared to controls. They further demonstrated that hyperactive children with blood lead greater than 25 micro gm/dl or urine lead of 80 micro mgm/dl following a chelation dose, showed significant improvement in behavior following chelation treatment (David et al. 1976). Children with elevated lead levels who had perinatal or developmental trauma had no response to chelation treatment.

The implications are clear that subclinical lead burdens are associated with behavior and learning problems in children. It may be impossible to prove that elevated body lead causes attention and learning deficits in children, because it would be unethical to feed lead directly to children. However, Silbergeld and Goldberg (1974) have developed an animal model with mice which clearly demonstrates the effects of lead on behavior. The activity levels of mice exposed to lead via their mothers' milk and, after weaning, fed lead acetate were more than three times greater than those of agematched controls. The hyperactive, lead-treated mice were then administered methylphenidate, d- and l-amphetamine, phenobarbitol and chloral hydrate, which are drugs frequently given to hyperactive children. The hyperactive, lead-treated mice showed the same paradoxical response of reduced activity to these drugs (with the exception of chloral hydrate) as do many hyperactive children.

Recently completed research by the Second National Health and Nutrition Survey reveals that one in five inner-city Black children under five years of age is carrying a lead burden great enough to cause behavior and learning problems ("Childhood Lead", 1982). Rural children are not exempt from ingesting significant levels. Thatcher, et al. (1982) found higher lead and cadmium levels in rural as compared to urban children. Sources of lead that children are exposed to include leaded paints, dust saturated with lead from automobile exhausts and industrial emissions, food packaged or stored in lead soldered cans ("Childhood Lead", 1982), and water that has stood in lead pipes (Edwards, 1980). Calcium metabolism appears to be closely linked with that of lead (Silbergeld, 1977), and Six and Goyer (1970) demonstrated in rats that lowered dietary calcium increases the absorption and body burden of lead.

Clearly, then, evaluations of body lead levels are called for in hyperactive, learning disabled, mentally retarded, or other children exhibiting poor learning or deviant behavior.

As cited earlier (Pihl & Parkes, 1977; Thatcher et al. 1982), cadmium, another heavy metal, has also been implicated in behavior and learning disorders. For a review of the toxic effects of cadmium and other metals such as thallium, mercury, bismuth, aluminum, and lithium see Edwards (1980)

Allergies

The effects of specific foods upon behavior and moods has been recognized throughout history, but Rowe (1930) was one of the first to recognize the cerebral effects of allergic-type reactions to foods. Randolph (1956) has described the many nuances of food allergies such as the frequency and size of the food dosage, food addiction, senitization to foods from intermittent consumption, delayed symptoms, the speed of absorption of food allergents, synergistic allergic reactions, and the diagnosis and treatment of food allergies. Kittler and Baldwin (1970) reviewed the literature and describe the typical child with the allergic tension-fatigue syndrome as exhibiting the following symptoms: puffiness and dark circles under the eyes, generalized pallor, excessive nasal mucous, fatigue alternating with nervous tension, irritability, distractibility, and sluggishness. They suggest that a significant proportion of children diagnosed as minimal brain dysfunction (MBD) instead suffer from cerebral altergies. Mayron (1979) has also provided a rationale for investigating the possibility of allergies causing learning and behavior problems.

To many psychologists and physicians, the idea that allergic reactions may cause behavior symptoms is new, but there have been numerous double-blind studies substantiating this thesis, many of which are reviewed in Philpott and Kalita (1980) and Schauss (1980, Chap. 6). A recent study by King (1981) is a representative example of how exposure to allergens can produce congitive-emotional symptoms. Using a double-blind method, 30 allergy outpatients were tested sublingually for responses to known or suspected allergens and placebos. The dependent measures included pulse rate, signature size, Bender-Gestalt, time estimation, a "uses of" test, the Mood Affect Adjective Check List, Block Design and three forms of the Digit Symbol from the Wechsler Adult Intelligence Scale (WAIS), number cancellation, graphic constriction-expansion, relief requests, and self report. Additionally, three personality measures were administered: MMPI, the Social Acquiescence Scale (related to placebo responsivity), and the Health Locus of Control Scale. Self-report was found to be the most sensitive of the dependent measures. Highly significant differences were found on dependent measures between allergen and placebo trials indicating the strong cognitive-emotional effect of allergens.

In other studies, Newbold, Philpott, and Mandell (1973) found 92% of a sample of 56 unselected hospitalized schizophrenics to be allergic and have psychological symptoms when exposed to allergens. They also found patients in other diagnostic categories to have psychological symptoms when exposed to commonly encountered allergens. Dohan and Grasberger (1973) found that hospitalized schizophrenics kept on a milk and cereal grain free diet were discharged from the hospital twice as early as those assigned to a high cereal diet. When they secretly added wheat gluten back to the food of those on the special diet, their therapeutic gains were lost. Singh and Kay (1976) conducted a smilar double-blind experiment and found that when wheat gluten was secretly added to the diet, the schizophrenic subjects relapsed. In a study of youngsters in a residential school for delinquent and academically failing adolescents, 86% were found to be allergic with behavioral manifestations (Klotz, 1976). Rapp (1979) has demonstrated the effects of food reactions on hyperactivity in children.

Two studies have been found which used allergy treatments to determine if the learning and behavior of children would improve. Millman, Campbell, Wright, and Johnston (1976) report on a non-blind study with learning disabled youngsters who also exhibited symptoms of allergy. They were treated with desensitizing injections and showed a "marked" improvement in behavior and intellect, but no tests of statistical significance were employed. In spite of the reported improvement, this study suffers from many methodological limitations which affect its usefulness.

A more carefully done study was performed by O'Shea and Porter (1981) with a sample of functionally hyperkinetic children. Of the 15 hyperactive children who participated in the study, seven had a positive family history of allergy, and 11 of the 15 had positive physical signs of respiratory allergy. The children were tested sublingually and intradermally to determine possible sensitivities to foods, food dyes, and inhalants. After determining the allergens for each child and the sublingual neutralizing doses, the children were placed on a normal diet excluding only food preservatives. Two three-week trails with either the neutralizing solution or a placebo were conducted with the children, their parents, and the experimenters blind as to when the children were receiving the placebo and when they received the neutralizing doses. Eleven of the 14 children who completed the study were rated by their parents as improved during the period they received the allergy neutralizing dose. The authors offer some interesting explanations of why three of the children were rated as not improved or worse during treatment. Teachers rated only seven of the 13 school aged children as improved during treatment as compared to placebo. The authors theorized that these children did not improve as much as school as at home because they continued to function with academic problems which may have contributed to their continuing behavior problems.

For further information regarding the incidence of behavior provoking allergies, their diagnosis, and treatment, see Dickey (1976), Philpott and Kalita (1980), and Rapp (1979).

A special case of an allergic-type reaction to salicylates has been proposed by Feingold (1974, 1975, 1976). This well known and controversial hypothesis originally proposed that 50% or more of hyperactive children were adversely affected by the salicylates found primarily in artificial food colors, but also in many foods (e.g. apples, tomatoes, strawberries, oranges, peaches, grapes, cucumbers, etc.), and in aspirin (acetylsalicylic acid). Feingold (1975) provided data from uncontrolled studies to support his hypothesis which has been enthusiastically accepted by parents of hyperactive children all over the world. Debate over the effects of the Feingold diet have become emotional and are fueled by numerous anecdotal case histories of success in alleviating hyperactivity and other behavioral problems.

For example, Stine (1976) reported two cases in which hyperactive preschool aged boys were placed on the Kaiser-Permanente (Feingold) diet as a last resort because of lack of response to stimulant drugs and adverse side effects. Both children responded well to the diet modification; however, positive results were noted only after six weeks for one child and two to five months passed before the other child responded. These case histories did not eliminate placebo, attentional, or maturational variables as possible reasons for the positive behavior changes. However, the suggestion that some children may not respond to the Feingold diet for a period of several months may be important. Many otherwise well controlled studies have used four weeks or less to determine the effect of the Feingold diet and in spite of this have found some or many children who have benefitted (Holborow, Eklins, Berry, 1981; Salzman, 1978; Swanson & Kinsborne, 1980; Williams, Cram, Tausig, & Andrulonis, 1976). The number of children who would respond to the Feingold diet after more prolonged periods should be determined by well controlled studies of longer duration (two to five months).

Salzman (1976) examined 31 children with learning and behavior problems and found 15 who showed sensitivity to sublingual testing of salicylates, artificial colors, or artificial flavorings. Fourteen of the 15 subjects placed on the Feingold diet showed behavioral improvement as rated by their mothers. Although this study was not well controlled and no challenge of offending substances was given, it did demonstrate autonomic symptoms (blood pressure drop, increased pulse rate, change in pallor) to the food colors, flavors, or salicylates. Also, the author provided an interesting explanation of why some behavior disordered children are well behaved in a physician's or psychologist's office. She believes that salicylates and other ingested chemical toxins interfere with the production of noradrenaline. But, in times of stress (as in visiting the doctor) noradrenaline is increased, thus overriding the disruptive effects of the toxic substance.

Holborow et al. (1981) studied nearly 300 normal school children to determine whether or not a trial period (unspecified) of the Feingold diet would enhance their performance. Most of the children were not affected by the diet as measured by pre and post parent and teacher rating scales. However, about 8½% of the sample improved significantly in areas of distractibility, attention span, fiddling, and demands for attention. A control group was employed in this study, but the conditions were not blind and no challenge doses were administered to the improved children.

A well controlled study by Conners et al. (1976) with 15 hyperkinetic children found significantly improved behavior noted by teachers and by an experimenter's clinical global impression. The parents also noticed improvement, but the differences in their ratings of control and diet conditions did not reach significance; however, the differences between baseline and diet were significant. The diet and control conditions each lasted one month, and the order of the conditions was randomized. This experiment was double-blind and well controlled, but no challenge with the salicylate containing substances was conducted.

In a study comparing the Feingold diet to stimulant drugs, J. Williams et al. (1978) found the drugs to be clearly more effective in controlling behavior. However, they found that approximately 25% of the youngsters were diet responsive. This study also employed double-blind cross-over conditions, was well controlled, and used challenges of salicylate containing substances, but the treatment conditions lasted only one week.

In a very well controlled study, Rose (1978) conducted a double-blind cross-over study with two eight year old girls who had been on the Feingold diet for at least 11 months. Trained observers systematically observed and measured out-of-seat, on task, and physically aggressive behaviors. Placebos were given and challenges with offending substances were made (double-blind). Separate tests were made to determine whether or not the challenge substance and the placebo could be differentiated, thus, insuring the double-blind conditions. The author found no placebo effect, but did find a differential sensitivity of the dependent variables to the challenges and significant relationship between behavior problems and the ingestion of food colors.

Swanson and Kinsbourne (1980) found the performance of hyperactive children to diminish significantly on a paired-associates learning task when challenged with a large dose (100 mg or 150 mg) of food coloring following a three day period free from food colors. No mention was made by the authors as to whether or not the testers were aware of which group (active or placebo) the children were in, and it is assumed the children were unaware of what was in their capsules. These authors note that previous studies using challenge doses of food dyes have been too small to provoke adverse behavioral responses.

Weiss, Williams, Margan, Abrams, Cann, Citron, Cox, McKibben, Ogar, and Schultz (1980) studied the effects of a challenge substance on the behavior of a group of children who had previously shown improvement on the Feingold diet. The challenge dose was determined by obtaining dietary histories on 80 similar children and estimating average daily amounts ingested. The children received a daily soft drink which contained either a mixture of food dyes in the above determined amount or an indistinguishable placebo. The conditions were double-blind, the challenge doses were randomized across time, the dependent vaiable was parent ratings, and each child served as his/her own control. Only two of the 22 children demonstrated sensitivity to the food colors.

Harley, Matthews, and Eichman (1978) carried out a double-blind challenge experiment on nine hyperactive boys who had been on the Feingold diet for 11 weeks. The challenge substances contained 13½ mg of certified food colors. Using a variety of dependent measures (parent and teacher ratings, behavior observations, and nueropsychological tests) no differences were found between placebo and food color challenges.

In a similar study, Adams (1980) tested 18 children who had previously responded well to the Feingold diet and whose behavior deteriorated when they violated the diet. The challenge substance contained 26 mg of artificial color, the placebo contained none. A number of cognitive, motor, and behavioral measures were made, but no significant differences were found between the placebo and challenge conditions.

A review of the literature by Stare, Whelan, and Sheridan (1980) states, "Although further research is needed on the relationship between artificial food additives and behavior before the component of food can be fully dismissed as a possible cause of hyperkinesis, it appears now that diet plays, at most, a very minor role" (p. 525). Likewise, after making a selective review of the literature, Taylor (1979) concludes, "There is still no persuasive evidence that intolerance of food additives is a major cause of hyperactivity" (p. 362). It must be kept in mind, however, that even the well controlled studies did not use large amounts of food colorings. Conners, Goyette, and Newman (1980) cite an unpublished study by Wilson (1976) which estimates that children consume two and one-half times the previous estimates of color additives when adjustments are made to allow for the food preferences and habits of children. Also, very few of the well controlled studies tested the placebos and challenge substances to determine if the subjects would differentiate between them. Rapp (1978) has proposed that since the Feingold diet removes many foods from a child's diet, the removal of a food allergen may be the serendipitous cause of improvement. Thus, although the research evaluating the Feingold hypothesis is improving, further refinements should be made in future studies. It is simplistic to think that such a nebulous classification as hyperactivity could be the result of a single variable such as salicylate reactions. But there is good reason to believe that the hyperactive behavior of some children is caused by salicylates and food dyes.

Reviews of other possible dietary and non-dietary toxins which appear to affect behavior may be found in Dickey (1976), Hall (1980), Pfeiffer (1975), and Schauss (1980).

Dietary Treatment Programs

Rees (1973) and Cott (1977) have outlined megavitamin and allergy treatment programs for learning disabled, hyperactive, and schizophrenic children. However, like many other "megavitamin" proposals, no data are presented to assess the adequacy or effectiveness of these programs. Adler (1978, 1979) has reviewed the use of megavitamines and other nutritional approaches to treating children with learning problems. He found mostly clinical anecdotal reports of successful treatments, but argues in favor of using such treatments and viewing each child as an N=1 experiment. Likewise, Knapczyk (1979) has surveyed the literature on nutrition and behavior disorders and has recommended screening for diet-related conditions and teaching parents about good nutrition; however, this author reported finding only one well controlled study (Rimland, 1973) which was reviewed above.

A single nutrient, calcium, and agents to aid its absorption (vitamin D, hydrochloric acid, lactose) were shown to improve long standing allergic symptoms dramatically and lastingly in an uncontrolled experiment by Bernheim (1964). Choline, a B vitamin and precursor for acetylcholine, has been found very helpful in alleviating the symptosm of tardive dyskinesia (Davis, Hollister, Barchas, & Berger, 1976) which is caused by prolonged use of phenothiazine-type tranquilizers. In a placebo controlled study, (Kaye, Sitaram, Weingartner, Ebert, Smallberg, & Gillin, 1982) a significant gain on the Wechsler Memory Scale was found when patients with primary degenerative dememtia were administered lecithin (a food source of choline) and an acetylcholinesterase inhibitor (which inhibits the breakdown of acetylcholine) as compared to either substance alone or a placebo.

Growden (1977, pp. 117-181) has reviewed the literature dealing with the therapeutic uses of dietary precursors of neurotransmitters. He found 20 studies which have evaluated the use of tryptophan (an amino acid precursor of serotonin) to patients with primary depressive disorders. The results showed improvement in some patients and none in others, reinforcing the idea that behavioral symptoms are not biochemically homogeneous. However, there appears to be a subset of depressive patients who respond well to increased consumption and absorption of dietary tryptophan. Research is currently underway to identify the biochemical subtypes of depression.

Tryptophan has been found to eliminate or reduce migraine headaches in most of a small sample of subjects, but is has not been shown to have more than a mild tranquilizing effect in schizophrenics (Growden, 1977). In experimental animals and normal human subjectis, tryptophan has a sedative effect and has been shown to be useful in treating sleep disorders (Growden, 1977).

Tyrosine (an amino acid) has been shown to increase the levels of the brain catecholamines (dopamine, epinephrine, and norepinephrine) and has been advocated for use in treating catecholaminergic diseases, including Parkinson's disease, phenylketonuria, and some forms of depression (Growden, 1977). However, Growden (1977) reports no experimental tests of tyrosine treatment in these diseases.

Dietary acetylcholine precursors have been found useful in treating many patients with Huntington's disease, and a few with Alzheimer's disease (Growden, 1977). Likewise, memory in normal subjects has been improved by administering acetylcholine precursors, and lecithin has been recommended for study in memory processes (Growden, 1977).

There have been numerous reports of success in treating behavior disorders with dietary treatments, but few of these have been well controlled studies (e.g., R. Green, 1973; Poulos, 1981; Powers, 1973 & 1975; Wunderlich, 1978). However, there have recently been some relatively well controlled studies assessing the effects of various dietary treatments. For example, Arnold, Christopher, Herestis, and Smeltzer (1978) in a double-blind crossover procedure gave 31 children with the diagnosis of minimal brain dysfunction a two week trial of the megavitamin regimen outlined by Cott (1972). They found no significant differences between the placebo and the vitamin conditions.

Similarly, Kershner and Hawke (1979) placed 20 learning disabled children on a low carbohydrate, high protein diet and added either a placebo or megavitamin regimen. Most of the children made substantial improvement which was not related to the megavitamins. No diet control group was used, but the low carbohydrate, high protein diet may have been the prime factor in improvement. A serendipitous finding was that when a calcium-magnesium tablet (dolomite) was added to the diet of four children who had become more hyperactive on the diet, this side effect, and others were improved or eliminated.

Schauss (1979) carried out a study with probationers comparing the effects of conventional casework or nutritional counseling on subsequent recidivism rates. The following treatment groups were formed: (1) two traditional casework/counseling groups, (2) the nutrition education group, and (3) a combined nutrition education and counseling group. A one year follow-up found re-arrest records significantly higher for the control groups than for either of the experimental groups and no difference between the experimental groups. A post-hoc analysis of arrest records prior to treatment and after treatment found a significant ($p < .01$) decrease in arrests only for the nutrition education group.

Another recent study (Harrell, Capp, Davis, Peerless, & Ravitz, 1981) has assessed the effects of nutritional supplements on the behavior and I.Q.

of mentally retarded children (about one-third were Down's Syndrome children) using double-blind procedures for a four month period. At the end of the trial period, I.Q. scores had increased significantly ($p. < .05$) for the supplemented group. When the subject who only sporadically took the supplements was eliminated from the analysis the significance of the difference increased further ($p. < .001$). The control group was then placed on the supplements for an additional four month period and demonstrated significant ($p. < .001$) I.Q. increases from the placebo period to the end of the supplemental period. After eight months of supplementation, the original control group showed mean I.Q. increases of 16 points (ranging from 12 to 24).

A compilation of the previously cited studies which have found dietary measures to be effective in alleviating psychological problems in well controlled studies include the following: hyperactivity, and vitamin B_6 (Coleman et al., 1979), and the Feingold diet (Conners et al. 1976; Rose, 1978; Williams et al. 1978), and lead chelation (David et al. 1976); and allergy neutralization (O'Shea & Porter, 1981); autism and nutritional supplements (Rimland et al. 1978); schizophrenia and gluten free diets (Singh & Kay, 1976); I.Q. gains and nutritional supplements (Harrell et al. 1981; Kubala & Katz, 1960); delinquency and nutrition education (Schauss, 1979); and memory and lecithin (Kaye et al. 1982).

Research Problems

Rose (1978) in reviewing research on the Feingold diet has made a criticism which seems to apply to most research with behavior as the dependent variable and diet as the independent variable, namely, that initial research should be aimed at first determining whether or not dietary manipulations have an effect under very carefully controlled conditions using a within-subjects design on a subgroup thought to be responders. If the phenomenon has been demonstrated to exist, then group research should be conducted to establish the parameters of the effect in the larger population.

Others have pointed out some of the problems of the highly respected double-blind procedure (Adler, 1979; A. Hoffer, 1973; J. Hoffer, 1974). These criticisms include: (1) the virtual impossibility of testing a treatment method as compared to a disguisable drug, (2) the difficulty of tailoring dosages to subjects, (3) the ability of subjects to differentiate between the placebo and the treatment, and (4) the frequent inclusion of heterogeneous groups in a study. However, there are some solutions to those problems. Rose (1978), for example, performed two tests to determine whether or not the placebo could be differentiated from the active substance. Several of the studies cited in this report (Coleman et al. 1979; David et al. 1976; Dohan & Grasberger, 1973; King, 1981; Rimland et al. 1978; Rose, 1978; Salzman, 1976) pretested the research subjects to determine the probability of their responding to treatment, thus providing more heterogeneous groups. The problem of tailoring doses to individual subjects can be partially solved by having a third party assign dosages according to the bodyweight of each coded subject. This method, however, does not take into account biochemical individuality, which will be discussed below. Although multiphasic treatment methods cannot usually be conducted double-blind, as in comparative psychotherapy research, most of the threats to validity can be controlled in other ways (Campbell & Stanley, 1966; Ellsworth, 1975).

Other problems in nutrition research include the difficulties in assessing food intake and subject compliance to a prescribed diet. However, memory and compliance are problems encountered in any human research which uses self-report to gather data (Hersen & Barlow, 1976, p. 131). The research methods which have been developed in applied behavior analysis (see Bailey & Bostow, 1979; Hersen & Barlow, 1976) should be useful in conducting much of the needed research that Rose (1978) has called for.

Another particularly difficult issue in any kind of human biochemical research is biochemical individuality. R. Williams (1956) proposed that there are great variations in nutritional needs among people which are due primarily to genetic variability. This thesis was tested in the research by Harrell et al. (1981) in which retarded children responded well to large doses of vitamins, minerals, and, in some cases, thyroid preparations. The genetically retarded Down's syndrome children were among the more dramatically improved (Harrell et al. 1981). Pauling (1968) has presented the explanation that large doses of vitamins or enzyme substrates are needed by some people to increase the otherwise sluggish output of genetically coded enzyme production. There are numerous studies which have shown depressives (Growden, 1977), schizophrenics (Pfeiffer, 1975, Chap. 40), the learning disabled (Shekim & Dekirmenjian, 1978), hyperactives (Margolin, 1978), and autistic children (Maher, Harper, Macleay, & King, 1975; Rimland, 1976) to be biochemically different from normals. Some of these differences may be the result of the behavior disorders, but in animal models deviant behavior can be produced in normal subjects by altering their biochemistry (e.g., Neideffer et al. 1980; Silbergeld & Goldberg, 1974; Six & Goyer, 1970). Experimentally induced starvation in human subjects is an example of how altered biochemistry can affect behavior in normals (Keys et al. 1950). Thus, the biochemical differences in learning or behavior disordered subjects is possibly the cause of problems in some and the result in others. However, unless these differences are taken into account and dealt with, they may impede therapeutic goals.

Clinical Assessments

Many psychologists routinely employ some of the psychometric instruments which have been used in studying the effects of diet/nutrition on behavior, such as intelligence tests, academic achievement tests, and perceptual motor tests. In using these instruments in clinical assessment before and after a therapeutic intervention, the reliability, the standard error of measurement, and practice effect must be considered (Anastasi, 1976, p. 43; Hersen & Barlow, 1976, Chap. 3). Other less standardized measures of acute changes in cognitive function are often valuable in clinical assessments. The Symbol Digit Modalities Test (A. Smith, 1973) has been used frequently by clinical ecologists to assess the effects of allergens on cognitive operation (e.g., Tikofsky, 1980). Paired-associates learning has proven to be a sensitive measure in acute cognitive dysfunction (Lapp, 1981; Swanson & Kinsbourne, 1980). The Serial Sevens test (SST) was used by Hale et al. (1981) and found to reflect changes in blood sugar level. The SSI involves having a subject repeatedly subtract seven from a starting number and is timed for a specified number of subtractions.

King (1981) found a suggestion that heart rate changes might differentiate allergens from placebos, and Salzman (1976) found a 15 mm mercury fall in systolic blood pressure when accompanied by a heart rate increase of ten beats/minute to be a positive sign of an allergic response.

Creative ways of systematically observing relatively discrete behavioral responses have been devised (Bailey & Bostow, 1979). An example of an unusual but sensitive behavior observation method used in assessing reactions to foods can be found in O'Bannion, Armstrong, Cummings, and Stange (1978).

Many of the studies dealing with dietary treatments have used rating scales completed by parents, teachers, or occasionally the subjects of the treatment. Conners (1969, 1970, 1973) has devised several rating instruments which are widely used in measuring the effects of drugs and diets.

Conners, Goyette, and Newman (1980) have used an actometer which is a movement recording device that makes relatively objective measures of motor activity. Bailey and Bostow (1979, pp. 131-133) have reviewed the use of devices for recording behavior as has Schwitzgebel (1968, 1970).

A 24 hour diet recall procedure was used to gather dietary information in Weinberg, Mandel, and Miller (1979). Another example of the 24 hour recal and an accompanying scoring method appear in Gauge and Ekvall (1975). More proceudral information on interviewing for dietary intake and assessing the diet adequacy may be found in Turner (1959) and Young (1957). A similar procedure is the diet diary which is a recording of all the food or beverages consumed over a specified period of time. Examples of this method of gathering dietary information may be found in J. Williams et al. (1978) and Prinz et al. (1980).

Summary and Conclusions

The purpose of this paper has been to provide a selective review of the research which has investigated the effects diet and nutrition may have upon behavior and learning. The literature dealing with prenatal and preinatal malnutrition strongly indicates that the result is frequently slowed brain development, brain damage, and/or impaired intellectual functioning when it occurs before one year of age (Martin, 1973). After one year of age acute malnutrition is more likely to be reversible, but seriously affects motivation, social responsiveness, and motor functions (Keys et al. 1950). Evidence suggests that subclinical malnutrition may be present in children with learning problems (Thatcher et al. 1982), adult psychiatric patients (Gauge & Ekvall, 1975), alcoholics (Strain, 1981), and persons taking anticonvulsive drugs (Springer & Fricke, 1975).

Hunger in the late morning hours due to an inadequate breakfast significantly reduces psychological and physiological functioning and adversely affects school performance and attitudes (Cereal Institute, 1962; Weinberg et al. 1979). Low blood sugar levels seem to inhibit learning (Lapp, 1981).

Deficiencies of the B vitamins are associated with various psychological problems and often are the first signs of the deficits (Strachan & Henderson, 1965; Strain, 1981). Higher than normal requirements for vitamin B_6 may be present in many hyperactive (Coleman et al. 1979) and autistic (Rimland et al. 1978) children. Marginally deficient levels of vitamin C have also been found to affect I.Q. scores (Kubala & Katz, 1960).

Mineral deficiencies may also adversely affect mental functioning (Pfeiffer, 1975; Edwards, 1980), especially zinc (Pfeiffer & Braverman, 1982), calcium (Six & Goyer, 1970), and magnesium (Edwards, 1980).

Low bood sugar, or hypoglycemia, appears to produce acute psychological problems (Hale et al. 1981; Lapp, 1981) in many people and may result in chronic personality deviation (Anthony et al. 1973; Bolton, 1973, 1976; Ford et al. 1976). Excessive consumption of refined carbohydrates aggravates hypoglycemia (O'Keefe & Marks, 1977; Wapnick et al. 1972) and is more prevalent in children who have learning and behavior problems (Prinz et al. 1980; Thatcher et al. 1982) and in adults with psychopathology (Weinberg et al. 1979).

Subclinical lead poisoning has recently been found to adversely affect learning abilities (Needleman et al. 1979) and activity levels (David, et al. 1972). Elevated, but subclinical lead levels are more likely to be found in learning disabled children than in their normal peers (Pihl & Parkes, 1977).

Allergic reactions can cause psychological symptoms (King, 1981), and food allergies are highly prevalent in clinical populations (Dohan & Grasberger, 1973; Newbold et al. 1973; Rapp, 1978; Singh & Ray, 1976). Reactions to food colors or salicylates has received much recent publicity (Feingold, 1974), and there is evidence that some hyperactive children are helped by avoiding these substances (Conners et al. 1976). However, the proportion of children whose hyperactivity is caused by salicylates is very much in contention (Adams, 1980; Harley et al. 1978; Weiss et al. 1980; J. Williams et al. 1978).

Dietary treatments which have been shown to be effective in reducing or alleviating psychological problems have included the administration of choline for tardive dyskinesia (Davis et al. 1976), lecithin for memory problems (Growden, 1977; Kaye et al. 1982), and tryptophan for depression and migraine headaches (Growden, 1977). Nutritional supplementation, including megavitamins, have not been found useful in well controlled studies of learning disabled (Kershner & Hawke, 1979) or minimal brain dysfunction children (Arnold et al. 1978). However, a similar study with mentally retarded children found megavitamins very helpful in increasing I.Q. scores (Harrell et al. 1981). A general nutrition education program with young delinquents was found more successful at reducing recidivism rates than either counseling or combined counseling and nutrition education (Schauss, 1979).

There are many research difficulties involved in diet/nutrition variables which may affect behavior. These problems have been dealt with successfully in other areas of behavioral research, and many of the methods of applied behavior analysis (Baily & Bostow, 1979) will be helpful in future research into diet and behavior.

A review of clinical assessment devices and procedures reveals many instruments and methods which are already in the repertoire of most school and clinical psychologists.

However, a recent survey of Iowa school psychologists (Harper, 1982) found that the majority have received no university training (85%) nor inservice exposure (63%) about the effects of diet/nutrition on behavior. Although most (95%) felt that diet can affect behavior, the majority (74%) never or rarely assess dietary variables. Most (81%) of the survey respondents expressed a moderate to high interest in learning more about nutritional factors that relate to learning and behavior.

Thus, there appear to be a number of ways in which the substances people ingest can affect their behavior, learning, and moods. Schauss (1980) found in his review of the literature that the bulk of the research on nutrition and behavior was carried out prior to the 1950s. Interest in this area seems to have been revived in the late 1960s and is increasing at present. This area of investigation has been labeled orthomolecular psychiatry (Pauling, 1968) and is still in its infancy but is gaining recognition. Much research remains to be done, but this is true even for some of the procedures of traditional medical practice (Dawber, 1978). A review of the resistance to past innovations in medicine and psychiatry has been made by First (1980) who predicts that resistance to orthomolecular concepts and practices will prevail until the climate is more favorable for a new paradigm or model of reality. The rate and the quality of the research in the area of nutrition and behavior is increasing and may be a sign of growing awareness and interest in orthomolecular concepts by scientists and clinicians in the behavioral sciences.

A holistic multiphasic or multimodal approach to the assessment and treatment of mental health problems is receiving increasing attention by counselors, social workers, educators, psychologists, and psychiatrists (Lazarus, 1976, 1978). This paper has reviewed the research which strongly suggests that dietary or nutritional variables should be an important modality in the assessment and treatment of behavior problems.

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Runaways

Alex Thomas

Abstract: Runaway youth constitute a significant national problem. This article provides an historical overview of the runaway in the United States, discusses characteristics of the average runaway, provides a framework for determining the seriousness of the runaway act relative to possible future maladaptive behavior, and offers suggestions that school psychologists may consider while working with runaway youth.

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Introduction

Our literature and fantasies perpetuate romantic notions of escaping the routine and mundane by flight toward excitement and vibrancy. Even as adults we continue to think of chucking it all and running to Europe, hitchhiking across the continent, or camping in the wilderness. Every generation has unconsciously supported and quietly admired, though perhaps not enthusiastically sanctioned, flight as a method of escape and a way to seek new vistas. The founding of our nation is predicated on flight from injustices, both real and imagined. That same perception, in many cases justified, impels individuals toward a hopeful new beginning or, at the least, an escape from an unfulfilling past.

Ours is a nation of runaways settled by people who left oppressive religious, social, political, and/or economic conditions to seek a better life for themselves and their families.

Our writers idealize the Huck Finn, Nick Adams, and Horatio Alger types who sought adventure and freedom. In the comfort of our homes we may identify with exploits of these flightful fictional characters. In reality, however, there may be more Holden Caulfields than Huck Finns, more danger than romance, and more despair than hope. What makes many fictional runaways popular is their apparent overcoming of incredible odds to make running away, in retrospect, a respectable search for meaning which ended well. Hindsight, as we know, is always 20-20. Huck Finn, it should be remembered, was escaping a domineering stepmother and authoritarian household.

Prior to the Industrial Revolution in our country, there was no serious social acknowledgement about running away, primarily because the perceptions and expectations of youth were different. Childhood was shorter, less restrictive, family ties were close, and school attendance was not compulsory.

The Industrial Revolution created the need for a large pool of unskilled and inexpensive labor. Lured by job opportunities and increased personal freedom while escaping less than desirable living conditions, many youth left their homes. Running away, in this context, provided this cheap labor for an expanding economy. The perceived exploitation of youth by a growing number of socially and politically aware activities led to the promulgation of laws for their protection. These laws (compulsory school attendance, freedom from abuse, control of child labor) tightened the social reigns of childhood and comprised the beginning of the child dependency movement. While affording legal protection to most children, the child dependency movement also tightened the social controls on the activities of a segment of youth. Although these laws did serve the purpose of protecting youth from the vagaries of life as well as the increasing public notice of parental mistreatment, they also led to greater codification and societal expectation of childhood behavior.

The context of the time has much to do with interpretation of behavior. Hester Prynne, heroine of sorts in Hawthorne's Scarlet Letter, was required to wear an "A" on her chest because of perceived misdeeds. Similar behavior today would rate a "C+" at the most. The view of running away has similarly changed and is legitimately considered to be a more serious act today than in the past.

During the twentieth century, three great periods of running away have been defined: The Great Depression, World War II, and the more recent "flower child" era of the late 1960s and early 1970s (Lipshutz, 1977).

The Depression lent an economic legitimacy to leaving home and highlighted the push/pull approach which may lead to running away: the push of the economic uncertainty and family disintegration combined with the pull of greater opportunity and freedom.

When a large military was needed during the second World War, running away to enlist was a socially approved method of escape. Institutional support, through status and economic maintenance, was provided for running away. Youth were also pulled to cities where wartime jobs were available and they could live in communities without worry of compulsory school attendance.

During the late 1960s and early 1970s running away became symbolic of not only national disenfranchisement but also of family disintegration, with thousands of youth fleeing to college towns or warm urban centers to find inner peace, ephemeral pleasures, as well as a plentiful supply of cheap dope. Most of these youth were not necessarily escaping economic adversity, many of them coming from middle and upper-middle class backgrounds, but rather fleeing familial unhappiness while being pulled toward the word-of-mouth vision, amply supported by an attendent media, of freedom and flower-power.

Oliver Twist ran away. Even Annie.

Running away, then, is not new although the context in which it becomes more frequent tells much about the social and economic fabric of our nation.

The most common historical thread to running away during the twentieth century is the pull toward greater personal fulfillment combined with the push away from a disintegrated family situation. Running away produces a staggering social and economic cost, not only to the families involved, but also to the larger society. In addition, such activity also exposes thousands of youth to the very real dangers of the open road (Miller, 1973).

Three Runaways

The three adolescent females presented in this section should be familiar to most school psychologists working with this challenging population. The first, Sally, is a case history presented in a government publication designed to alert transportation centers for characteristics of runaways who may be loitering around bus and rail centers (Department of Transportation, 1980). The others, Mary and Cynthia, are from the author's professional experience.

Sally

Sally grew up in a small, rural town with three brothers and sisters and parents were divorced when she was in high school. The divorce upset the family life and Sally's school work suffered. Her mother grounded her for a month, warning her that if her grades did not improve she would be restricted even longer.

Upset at the punishment, Sally sneaked out her bedroom window and ran to a nearby girlfriend's house. She planned to return home before her mother discovered her absence but her mother found out immediately, and called the girlfriend. Afraid of the mother's anger, the girlfriend lied about Sally being at her house. Rather than face her mother, Sally decided to run away and borrowed money for bus fare to Los Angeles.

Sally arrived at the Los Angeles bus terminal with $1.50 in her pocket and the name of a cousin she remembered living in the city but who she had not heard from in three years. Upon arrival, she spent most of her money on a sandwich and then tried to find the cousin's name in the telephone directory. Not finding the name, she wandered through the terminal afraid and upset. Although she saw several security police and a Travelers Aid sign, she was afraid to approach them for fear of being returned home and facing her mother. Several men approached her, including a nicely dressed young man whose friendliness convinced her to accompany him to his hotel room to use his phone. In his room he demanded sexual favors in return for use of the phone. When Sally refused he hit her several times and tried to rape her. She managed to escape his grasp and ran out into the streets where she hid behind a trash container in an alley. Terrified that he was looking for her, Sally stayed behind the container all night.

The next morning, she returned to the bus station. Seeing the Travelers Aid sign, she waited in the women's room until the offices opened for the day. The first person she met at Travelers Aid was a counselor and caseworker. At first, Sally told the worker she had lost the telephone number of a relative in Los Angeles whom she was to meet. After they had talked for a while, Sally began to reveal the true story: the attempted rape, why she had left home, how her pride and shame had kept her from calling her mother, and how she had spent the night, terrified that other men would approach her. The police were called and began to look for the man who tried to rape Sally.

Although ashamed and afraid, Sally agreed to telephone her mother, who by that time was frantic about her daughter. The girlfriend had told her where Sally had gone. The mother was overjoyed to hear from Sally, and immediately arranged to come to Los Angeles to pick her up. When Sally's mother, arrived the counselor conviced her that she and Sally should see a counselor in their community and begin to resolve their problems (Department of Transportation, 1980, p. 5).

Mary and Cynthia

Mary was a 15-year-old high school student with poor grades, average intelligence, very few friends, and a family life characterized by an inadequate mother and mostly absent and distant father. Because both parents were working, Mary had the primary responsibility for the care of her two younger brothers who were coming increasingly difficult to control. Her parents found Mary's handling of home responsibilities inadequate, one of the few domestic topics on which her parents found agreement. Mary wanted to please and do the right thing, at home and at school, but somehow she always missed and wound up incurring the wrath of her parents.

At school, Mary was largely by herself and had little positive peer contact. She received mainly C and D grades, did not distinguish herself in any area, and never came to the attention of the school counselor, much less the school psychologist. She made one friend, Cynthia, who's move to the area was precipitated by her parents' desire to escape an unhappy environment.

Cynthia, a year older than Mary and having a learner's driving permit, had run away on two previous occasions, and the circumstances surrounding previous flights largely provided the impetus for the move to Mary's community. During a down time in November Cynthia persuaded Mary, who had come under her new found friend's wordly ways, to go with her to Detroit where Cynthia had a boyfriend who would provide lodging and food. They both left with no notices. Both were runaways.

Within a day after arrival, Mary wanted to return home and called her parents who came to pick her up. Cynthia remained. Sally, Mary, and Cynthia are runaways. They share common elements in their personal histories. All three did poorly at school, were unhappy at home, left home, were reported to police as missing, and were classified as runaway youths. Although they all share some common characteristics, there are differences in the motivations leading to running away, their insight into understanding of their motivations, and their possibilities for a happy and fulfilling adulthood.

What could have been done to prevent their flight? Could running away have been a temporary setback in otherwise normal development? Were there some telltale signs of dissatisfaction or unhappiness that could have been picked up by a teacher or relative?

School psychologists may not be frequently involved with runaways since flight is not usually directly related to school difficulties, although such difficulties usually accompany a variety of other characteristics. However, all runaways are in school, however successful or infrequent that may be, and school psychologists may be in a position to assist actual or contemplative runaways.

Definition and Incidence

The incidence of running away is primarily dependent on definition and the method of reporting with levels of incidence ranging from a low of .0011% to a high of 24.3% (Daniels, 1976). Police records, shelter house contact rates, and Welfare Department reports are generally used to gather incidence data but it is likely that many cases of running away never wend their way into officially recorded statistics (Shellow, R., Schamp, J., E., & Unger. E., 1967; Ambrosino, L., 1971).

A runaway is defined as a youth who willingly leaves home knowing that they will be missed. The most reliable estimate of incidence seems to be provided by the National Center for Health Services (1975) which reports that approximately one out of every ten American youths (ages 12 to 17) have run away at least once. Each year, between 800,000 and 1,000,000 adolescents run away from their American homes. Most of these youths are from white suburbs, almost half are female, and many are no older than 13 or 14. Only drug abuse rivals running away in importance as a mental health issue for adolescents in our country (Schaefer & Millman, 1978).

There are other definitions considered distinct from runaways although they may appear to objectively encompass the same behavior. These include distinctions between runaways and castaways (Gullotta, 1978(a)), throwaways (Gullotta, 1978(b)), castaways (U.S. Senate Judiciary Committee, 1980), floaters (English, 1973), abortive runaways (Stierlin, 1973) and agency assists (Gullotta, 1978(b)). The most important of these distinctions, the throwaways, essentially deal with youth who are forced to leave home by their parents. The throwaways may be directly tossed out of the house, may be provided purposefully intolerable conditions to precipitate flight, or may reach a tacit understanding with the parents that they are to leave home. The high incidence of throwaway youth has sparked a recent investigation by a subcommittee of the U.S. Senate's Judiciary Committee (1980) of throwaway and castaway youth. The primary difference between throwaways and runaways is that runaways are missed and sought by their parents while the departure of the throwaway is encouraged.

The National Center for Health Statistics incidence level of 10% is based on a broad definition of leaving home purposefully knowing that the youth would be missed. This may include leaving home for one hour or one month, going to a relative or going to another state, and with expectations of being gone for a long time as well as expectations of only being gone for a short time.

Youths leave home for many reasons. For some, running away is an irrational, impulsive response to an immediate crisis which may appear trivial to the adult observer (a failing grade, an argument with a parent). Other runaways seem to be pursuing a very rational, calculated course of action to escape from pressures. Some observers view flight as the best solution to a youth's problems (Kratcoski, Yonas & Kratcoski, 1979).

Incidence and definition need not overly concern the school psychologist since those working with youths who are contemplating or who have run away, regardless of definition, are working with a troubled population. There may be considerable individual differences within the same defined population or remarkable individual similarities within overtly diverse behavior as indicated by Sally, Mary, and Cynthia. In effect, for the practitioner, spliting definitional hairs or being overly concerned about incidence statistics is of little practical usefulness when dealing with troubled adolescents.

Research on runaways has primarily been correlational/relational rather than experimental, understandably considering the difficulties of experimental manipulation for this population. Therefore, comparisons between runaways and non-runaways on such variables as family size, family structure, socioeconomic status, or school factors yield group differences that may lead to at-risk determinations but little in the way of information implying causality. Individual prediction, like much of school psychology, is difficult based on differences in group characteristics.

Inconsistent definitions for operationalizing runaway behavior, the nature of research regarding the runaway population, and failure by multidisciplinary researchers to specify limitations of their data make it necessary to guard against overgeneralization of the existing data base on runaways.

For school psychologists, it is a challenge to find a balance between the tendency to assume a distinct series of psychosocial characteristics of runaways (or other identifiable groups) and the tendency to fragment the general term into a series of subterms so that generalization would be impossible. This dilemma runs through most psychological prediction and intervention, assuming a distinctly intact membership in an identified group as opposed to fragmentation, i.e., castaways, abortive runaways, throwaways, etc. This concern is inherent in discussions of runaways because, as highlighted by the previously cited case histories, similar behavior may have different consequences based on its cause and dissimilar behavior may have similar consequences.

Adams and Monro (1979) have noted that investigation on this topic use ex post facto designs, making it unclear whether psychological disturbances precede or follow running away. Runaway subjects are included in investigations because they have been identifed by one of the previously cited agencies, and there is a noted lack of experimental studies dealing with the runaway or contemplative runaway population.

Characteristics of Runaways

The modern runaway leaves home for a variety of reasons with wanderlust and economic factors generally being minor. The major factor tends to be a psychological make-up characterized by low self esteem and low sense of belongingness combined with a home and family situation perceived as unsatisfactory. As with most research regarding behavioral characteristics of a defined group, it is much easier to develop, as previously mentioned, a group profile rather than predict whether a specific individual is a potential runaway.

Deisher (1975) points out five causes for running away: 1) those who wander in order to see the world and broaden their perspective, 2) those who break ties with traditional institutions because of dissatisfactions with the system, 3) those who have been seriously damaged psychologically by mistreatment at home, school, or the community environment, 4) those who feel compelled to leave the pressures of home and school and subsequently, wander aimlessly, and 5) those who are away from home for more than an evening without permission but do not fit any of the other categories. It does appear that in most cases running away is related to events both literally and figuratively closer to home.

Rejection at home and school, and subsequent development of a poor self-image, is seen by Johnson and Carter (1980) as primarily contributing to running away. They view the homes of runaways as having high rates of internal conflict, divorce, and residential mobility. Children from such environments are often tracked early into slow learner classes or required to repeat grades. Further school difficulties are highlighted by constant truancy. They propose, as a solution to this fruitless cycle leading to running away, the "harnessing of youthful vitality in the service of meaningful goals" (p. 487). It is unfortunate that Johnson and Carter do not contribute specifics regarding the harnessing of all this vitality.

Studying the relationships between child abuse and runaways, Gutierres and Reich (1981) obtained a large sample a child abuse cases from the Arizona Child Protective Services, many of the cases identified as juvenile delinquents. They found that children who were physically abused were less likely to engage in aggressive crimes (assault, fighting, armed robbery), but were more likely to be arrested for escape infractions; two or three times higher than non-abused children.

For one sample of abused juveniles, 40% of arrests were for escape infractions while 17% of non-abused juveniles were for the same reason. There is a greater probability for an abused child to run away than a non-abused child. An additional finding was that siblings of the physically abused sample of runaways also had a significantly higher probability of running away than the control sample of non-abused juvenile delinquents. It seems that physical abuse toward one child may also be accompanied by psychological abuse which pervades the entire family relationship, therefore, contributing to a sibling reaction. Rather than lashing out at their parents or indulging in an overtly aggressive act, they flee.

Gutierres and Reich suggest that runaway juvenile offenders may be victims rather than perpetrators, and support the movement toward classification of runaways as "status offenders," leading to selectively different legal consequences and socil implications. A delinquent act is a juvenile behavior that would be criminal if done by an adult. Status offenses are those behaviors which would not be illegal or inappropriate as an adult but are if done by a minor. Examples of common status offenses would be truancy, drinking, not obeying parental curfew restrictions, and running away. Running away, then, is not a criminal or delinquent behavior, but an offense that may, under certain circumstances, come under the jurisdiction of the local juvenile authorities.

Studying the youth who come to runaway houses, Laurie & Campiglia (1979) note the higher incidence of abuse and neglect in this population and conjecture that the youth do not perceive themselves as abused but rather as the recipients of deserving punishment for home misdeeds. These researchers note that the incidence of abuse among the runaway population is much greater than had been previously reported.

Physical abuse, however, is only one manifestation in a family network that contributes to dissatisfaction and unhappiness on the part of the runaway.

Runaways, compared to nonrunaways, are more likely to have lower self-esteem and show greater signs of depression (Beyer, Holt, Reed & Quinlan 1973); show lower self-regard (Wolk & Brandon, 1977), are more likely to be typified as insecure, unhappy, impulsive children who as adults are likely to have emotional problems (Jenkins & Stahle, 1972), and are more likely to come from larger than average families (Johnson & Carter, 1980).

Runaways have been shown to have more police contacts than run-away peers (Shellow, et al., 1967), to have a higher incidence of drug abuse (Stierlin, 1973), and to have a higher incidence of alcohol abuse for themselves and families (Treaner & Van Houten, 1976).

Circumstances which lead a youngster to leave home most frequently involve a family disturbance centering around specific parental control issues such a parental disapproval of a boyfriend or girlfriend, school issues, grooming, and dress and behavior, etc. (Gullotta, 1978 (b)).

It appears that the specific stress factors leading to running away may differ between males and females. Comparing runaway and nonrunaway adolescents, Wolk and Brandon (1977) report that runaways view their parents as less supportive and more punitive in their childrearing practices than nonrunaways. Boys were more controlled by parents in activities outside the home while girls perceived their parents as more controlling within the home. The family dynamic of parental control may be an important characteristic related to higher incidence of running away.

Female runaways seek assistance at Runaway Centers more than males and, perhaps related to the control factor and family supported sex roles, females tend to be less prepared for life on the road while males plan their escape (Miller, 1973).

An overview of characteristics of runaways show them, as a group, to come from a diversity of sociocultural backgrounds, equally divided between male and females, and having a common experience of an unhappy family life.

Situation or Pathology

Is running away a maladaptive response even if the sociocultural background of the child can be identified as justifying concern and somewhat legitimatizing the motivation toward flight? Is running away simply maladaptive or, more seriously, is it indicative of psychopathology?

Flight from problems, even among those without adequate ego strength or resources to deal with these problems, is generally considered maladaptive, though perhaps not pathological.

The story of Jamie may serve to highlight this issue:

Jamie's parents reluctantly married about two months before he was born. They were not particularly interested in having a child nor were they fond of each other. The parents fought constantly, were inconsistent in their approach to their son, and both subtle and obvious ways communicated that he was a burden on their lives. The primary method of discipline was beating with a strap but, Jamie could never predict which behaviors would be accepted and which would not since his parents' reaction depended on a number of factors: had they been drinking, had there been a fight, and was the father in one of his frequent periods of unemployment. When Jamie was four years old his father left, his mother began receiving Aid to Dependent

Children, and she also began leaving Jamie unsupervised for long periods of time while she went out. She eventually remarried. His stepfather did not like Jamie because the child was undisciplined and Jamie became the source of heated arguments between the new couple.

Jamie started school and had numerous difficulties: he could not attend to one task for a sustained period of time, he would bother other children, he would sometimes take things in the room, and he would not respond to the usual methods of controlling behavior. His behavior became particularly uncontrolled after his mother and stepfather had a child of their own, his stepsister.

He was retained in second grade, learned at a slower rate, and his behavior was always of primary concern among teachers. Efforts to involve his mother in resolving these school problems were unsuccessful: she rarely attended parent conferences or open houses at the school and never attempted to interest Jamie in Cub Scouts or Little League activities. His mother and stepfather gave all their positive attention to his stepsister and negative attention to Jamie. He was simply not wanted.

In the fifth and sixth grades his behavior was forming into a predictable pattern: hanging around with a "tough" crowd, truancy, smoking, and pre-delinquent acts.

He was suspended twice during the sixth grade and three times in junior high school. Repeated suspensions and expulsion lead to referral to the counselor and then school psychologist. James was basically uncommunicative and his mother and stepfather refused to attend school conferences to discuss Jamie's school behavior.

When Jamie was 15, he ran away and was apprenended 50 miles from home in a stolen car. He was sent to the Youth Commission for evaluation (Thomas, 1978, p. 3-5).

Jamie is not an unusual or dramatic case. Is his antisocial behavior indicative of pathology, or is it an understandable result of his socio-cultural background?

If we know Jamie as an infant, we feel sorry for him that he must grow up in a home without love and warmth. If we know him as a pre-schooler, we may tolerate his erratic and often unpredictable behavior because we understand and appreciate the type of environment in which he lives. In the primary grades we give him as much attention as we can, realizing it is not enough, while hugging our own children even tighter. When he is ten, we discourage our children from playing with him. In junior high school the youngster is "no good", and we may feel uncomfortable around him. When he runs away and eventually sent to the Youth Commission, we sigh relief that he has left the community.

Running away is a legitimate reason for concern, regardless of circumstances preceeding flight, for it communicates unhappiness, dissatisfaction, and/or alienation. Is Jamie's behavior indicative of psychopathology, or is it a somewhat understandable though inexcusable result of environmental circumstances. How should we consider the runaways mentioned earlier; Sally, Mary, and Cynthia?

As times change, so does the established psychiatric view of running away. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, 2nd edition, published in 1968, included a diagnostic category for runaways.

> 308.3 Runaway reaction of Childhood (or adolescence). Individuals with this disorder characteristically escape from threatening situations by running away from home for a day or more without permission. Typically they are immature and timid, and feel rejected at home, inadequate, and friendless. They often steal furtively.

In the changing psychiatric nosology, the DSM-III, published in 1980, does not include a distinct category for the runaway, but groups runaways under the more generic category of "conduct disorder, undersocialized, nonaggressive" (p. 385).

While using the now abandoned classifications of DSM-II, Jenkins (1971) did a cluster analysis of 300 adolescents committed to the New York State Training School for Boys. He identified three groups of delinquents: group delinquents (motivated, adaptive delinquent behavior involving aggressive rather than furtive stealing), unsocialized aggressive reaction (impudence, obsenity, quarrelsome, disturbing school attitude), and the runaway reaction (emotional, immaturity, apathy, seclusiveness, and non-aggressiveness). All boys were adjudicated delinquent. Compared with the two other groups, runaways were least often living with both parents, most often were unwanted children, and were most often rejected by their parents. Parents were viewed as less often supportive and there was substantially less shielding from authorities for this group.

Jenkins states that the runaway reaction is a "frustration response to a grossly unsatisfying home situation" (p. 64), much different than an unsocialized aggressive reaction in which fight is much preferred to flight.

Jenkins, a psychiatrist, concludes that the delinquent runaway represents more personality pathology than other delinquent groups and is difficult to treat, and recommended treatments usually involve modification of the home atmosphere or removal from the home. Jenkins further adds that a substantial period of socialization in an accepting atmosphere will result in more hostile and overtly aggressive responses.

The psychopathology model of runaways essentially views flight as symptomatic of mental illness, and is one distinct view of this behavior which finds support in the research literature (Edelbrock, 1980).

There is also support for a psychosocial view of runaway behavior. Goldmeier and Dean (1973) using a self-administered questionnaire, compared two groups' perceptions (those who ran away once or more and those who never ran away) of their particular personal and situational circumstances. With demographic equality between the two groups, runaways tended to be older than nonrunaways, were primarily involved in vocational or non-academic programs at school, and came more often from homes where one of their natural parents was absent. School difficulties were cited as problems significantly more by runaways. Goldmeier and Dean concluded that the runaway act is motivated by several factors that cannot simply be reduced to psychopathological or situational factors. The runaways indicated that they were affected by certain situational stresses that impaired functioning (family relationships, school adjustment, support from other significant adults). Of particular interest, was the runaway's inability to get along with adults; whether parents, clergy, or counselors. Runaways tended to be more drawn toward siblings for help.

There are varying expectations for successful intervention related to the two diverse views of running away: as indicative of mental illness (psychopathological model) or as consequence to environmental circumstances (psychosocial model). Follow ups on former runaways assist in developing this perspective.

Robins and O'Neal (1959), in a follow-up study of children seen in a child guidance clinic during the mid to late 1920s because of running away, found that runaways had a higher rate of mental illness, more frequent arrests, greater life dissatisfaction, and more frequent diagnoses of sociopathic personality than former patients of similar age who did not runaway.

Olson, Liebow, Mannino and Shore (1971) compared the later life adjustments of runaways with their siblings. Runaways generally did not receive high school diplomas and had more negative attitudes toward school. There was early evidence of a strained relationship between most runaways and their parents and, in the early years, conflict centered primarily around school performances. Many of the runaways in Olson's sample saw themselves as freaks, the one in the family who could not function. All of the sample runaways said that one parent had hit or beaten them more than once just prior to running away. Later life adjustment in terms of job and marriage stability was significantly lower for runaways than their siblings.

Treatment depends partly on the view that is taken of runaways. If runaway behavior is seen as a manifestation of psychopathology, symptomatic of a future sociopathic personality taking an adolescent form of undersocialized nonaggressive conduct disorder, then expectations of successful intervention are limited. If running away, on the other hand, is viewed as symptomatic of a call for help and assistance, and primarily of psychosocial origins, then intervention efforts may be fruitful.

Working with Runaway Youth

Regardless of how runaways are defined or the degree to which subgroups of the generic can be segmented (castaways, throwaways, etc.), the group of youth who fall within the broad rubric "runaway" are usually troubled, unhappy, and alienated from the primary supportive institutions: family and schools.

As school psychologists, our attention may be drawn to contemplative or former runaways because of poor academic performance and/or behavioral concerns, reasons not immediately related to flight. School performance of contemplative or former runaways is important as it highlights the patterns of relationship within the family since conflicts over school frequently exacerbate already fragile family relationships. Most runaways have a history of unfulfilling school experiences.

Effective intervention for a runaway or contemplative runaway requires identifying members of this group and providing assistance that decreases the likelihood of flight. Identification requires the school psychologist to be knowledgeable concerning the ethical factors involved in these circumstances (see next section), as well as the likely outcome for what may be a considerable time investment.

Dealing with passive, nonaggressive adolescents requires patience, empathy, and firmness, in addition to a goodly amount of personal ego strenths on the part of the school psychologist, at least sufficient to endure frequent setbackes in the relationship. Considering the demands on most school psychologists' time, the efforts extended to a specific population can reach the point of diminishing returns.

Classical psychiatric approaches to runaways would indicate that traditional intervention approaches (therapy) would be minimally effective in encouraging prosocial behavior (Jenkins, 1971), particularly if the focus were entirely on the individual runaway. Passive, nonaggressive runaways, possessing little insight into their behavior, and who may be psychiatrically labeled as conduct disordered, have poor prognoses for individual therapy.

It is essential that any effective treatment program include family involvement. The single runaway act, particularly is precipitated by an acute family confrontation, is not as indicative of future maladaptive behavior as would repeated runaway acts seen as an outgrowth of chronic family disturbance.

For school psychologists, considering limited time and resources, the contemplative runaway or first time runaway, ought to be the highest priority. Youth who are members of this high priority group may be considered maladaptive but not necessarily pathological.

One primary method for school psychologists to assist runaways and their families may be through cooperation with the Juvenile Court Judge or Juvenile Probation Officer, those who are responsible for working out the details of probation. Judges in juvenile courts have wide latitude in determining conditions of probation and juvenile probation officers also have considerable flexibility in determining how those conditions may be met. Cooperative ventures with the juvenile justice system, then, may be a realistic way to assure family involvement. This would depend, of course, on the school psychologist's relationship with the Juvenile Court Judge and Probation Officers.

As a condition of probation, counseling for the family or youth is frequently required. For many runaways and their families, counseling as a condition of probation may be the only way to involve the family. Voluntary participation in counseling is, of course, preferable to forced counseling, but in dealing with some families of runaways, forced counseling is preferable to none. By arrangement with the juvenile authorities, the school psychologist may offer to be involved in the conditions of probation through family counseling.

In addition to segmenting the generic even further by distinguishing between abortive, lonely schizoid, causal, and crisis runaways, Stierlin (1973) views successful runaways as "availing themselves of a pathological mode of separation which modern society offers its adolescents" (p. 57). Treatment of runaways, according to Stierlin, requires a firm understanding of family dynamics, particularly the concept of transactional mode. Transactional modes operate as an organizing factor in child/family relationships, and depending on the predominant transactional mode of interaction within the family (binding, delegating, expelling), running away has different causes and different treatments. For example, when the mode of expelling prevails, there is overt and covert neglect and rejection of a child resulting in family forces that essentially push the child to premature separation. The pattern of family relationships differ in other transactional modes. Stierlin supports the need for family involvement in working with runaways, and cites the necessity for differential treatment based on the predominant transactional mode. Stierlin literally supports the figurative transactional homily "Different strokes for different folks."

Wodarski and Ammons (1980) deal primarily with parenting techniques in their approach to working with runaways. They find that parents of runaways lack consistency in handling their children and that the relationships between parents and runaway children is characterized by unrealistic parental expectations regarding appropriate youth behavior. Family life is also marked, they note, by a high degree of strain evident in the degree to which parents criticize, threaten, and use physical punishment with children.

The approach advocated by Wodarski and Ammons includes teaching communication skills, problem solving, and conflict resolution to family members. A comprehensive treatment program consists of a child management program, a family enrichment program, and an interpersonal enrichment program, each of the three seen as essential in providing the runaway and family with future skills for optimum functioning.

Involvement of the parents of runaways in a highly structured parent group, such as Parent Effectiveness Training, is advocated by Justice and Duncan (1976). They state that P.E.T. can teach specific parenting skills and important parenting concepts such as active listening. They state that involvement by parents in such groups can decrease the family pressures that lead to running away. No data is provided regarding the effectiveness of these groups.

An entire network of service providers for runaways, somewhat apart from the purview of school psychologists, are Shelter Care Facilities, places where runaways can find food, lodging, and other assistance. There is a network of Shelter Care Facilities across the United States, and they provide a range of services (Jorgensen, Thornburg & Williams, 1980).

The Office of Juvenile Justice and Delinquency Prevention was established as a result of the Juvenile Justice Delinquency Act of 1974. Two primary purposes are to decrease the number of youths who become involved with the juvenile justice system, and to reduce the number of status offenders confined in detention and correctional facilities, many of these detainees being runaways. The Office of Juvenile Justice and Delinquency Prevention has published a booklet outlining 212 runaway programs that exist outside of the juvenile justice system and which primarly serve the self-referred runaway (New England Association for the Education of Young Children, 1979).

Working with runaway or contemplative runaway youngsters creates a number of ethical and legal problems which will be discussed in the next section. For school psychologists, a practical approach is to view the runaway as troubled and alone, but not necessarily pathological, and initially to create an accepting and empathic relationship. It is unlikely that the circumstances creating the need to runaway will change unless there is family participation in the program.

For optimum success in dealing with runaways, the school psychologist needs to work for family involvement, to have a firm understanding of family dynamics, to know how the youth fits into the family constellation, to have the ability to create a therapeutic environment, and to have the knowledge to provide and reinforce alternative methods of family interaction.

Ethical and Legal Issues

The position of the school psychologist regarding the important ethical and legal issues of self-referral and privileged communication is a major consideration when dealing with students who contemplate running away or indicate that they are involved in delinquent behavior.

If a student consults a school psychologist without parental consent, the practitioner is left with even less legal protection than if written parental consent were first obtained. The National Association of School Psychologist's Principles for Professional Ethics (1971) recognizes the right of students to initiate self-referral for psychological consultation. Laudable as that goal may be, statutory and case law may not be equally magnanimous, as pointed out by Bersoff (1975)

> The. . .law is presently in the process of affording adolescents greater freedom to seek medical and psychological help without the necessity of receiving parental permission, a change advocated by many writers and legal scholars in recent years. . . despite these recent developments, the right of adolescents to seek help by giving valid consent is far from universal, and is presently confined to certain modes of intervention by certain classes of practitioners. There may be ample justification in the legal literature in the support of the right of young persons to secure treatment without parental consent or permission, but until that right is won, school systems and school psychologists may continue to be vulnerable to civil suits (p. 371).

Bersoff concluded with the following precautionary statement:

> School psychologists, like other school people, must be sensitive to the rights of all concerned and the requirements of the law in the jurisdiction in which they are employed. At the same time that school psychologists may advocate increasing autonomy for children and the latter's right to be directly involved when their personal interests are at stake, psychologists must also be aware of the constraints on practitioner's behavior that the law has imposed (p. 372).

A practicing school psychologist, working entirely at the high school level and former president of the Ohio State Board of Psychology, Bock (1972) points out that on some issues, there is no room for professional rumination: issues where the child's life is endangered as a result of attempts or threats of suicide/homocide/abuse. In such cases, it is generally agreed that the psychologist has a legal and moral responsibility to inform the parent/guardian or appropriate authorities. However, there is a range of other adolescent behavior, much less dramatic and far more common, where such distinctions are not clear cut; such as running away as well as drug experimentation, pregnancy, abortion, and real or contemplated overt delinquent/criminal behavior.

The American Psychological Association's 1981 revision of Ethical Principles of Psychologists, Principle 5 which deals with confidentiality, states:

> d. when working with minors or others persons who are unable to give voluntary, informed consent, psychologists take special care to protect these person's best interest.

What constitutes best interests, however, is likely to cause considerable legal debate, the center of which most school psychologists diligently wish to avoid.

Although running away is the specific focus for this consideration of legal and ethical issues, the concern for school psychologists is generic and deals with confidentiality, ethical and personal responsibility, and professional practice. When working with adolescents who contemplate running away, or with adolescents with similar problems that are not immediately life threatening (drug involvement, abortion, pregnancy, shoplifting, etc.), Bock offers the following practical guidelines for school psychologists.

1. Initially, make no promises or commitments not to violate a confidence until you understand the nature of the problem.

2. Allow the adolescent ample time and opportunity to ventilate feelings, especially focused on their perceptions of the problem behavior and what they believe can or should be done to alleviate the source of distress.

3. Attempt to determine why the adolescent adamantly refuses or is reluctant to have his/her parents apprised as to the nature of the problem.

4. During the initial diagnostic interview or immediately thereafter, attempt to assess the ego strengths of the adolescent, what he/she has done to deal realistically with the problem behavior, and whether motivation is present to continue problem solving efforts.

5. Early during the initial interview, assume that simply getting to your office represents, on the adolescents' part, an appeal for help or at least an indication of interest in securing "outside" intervention. You need to assess how the adolescent perceives you in a professional role and simultaneously determine his expectations.

6. If, in your judgment after the above procedures have been followed, you believe that treatment cannot be honestly or realistically pursued without parent participation, you need to explain your rationale, anticipate resistance but also expect that the adolescent may be not only relieved but willing to trust your judgment. Keep in mind that if the adolescent trusts you and has confidence in your ability and judgment, and also believes that you are supportive (irrespective of whether he or she is morally 'right' or 'wrong') parent involvement is likely to be perceived as far less threatening. Also, keep in mind that if the adolescent persists in refusing to have you involve their parents, you may be 'handcuffed' in your efforts toward treatment or effectively helping this person.

7. Parent involvement may be intiated by the adolescent, by yourself with his/her prior knowledge and consent, or in joint collaborative action. This initial contact with the parent in apprising them of the nature of the problem behavior will depend greatly upon the depth and quality of the therapeutic relationship established at that point. (in press)

There are obviously some legal and ethical constraints in dealing with adolescents who confide in school psychologists their intent to run away. Each practitioner must fine a proper balance between the delicate legal and ethical issues outlined and the personal and professional concern for anothers' pain.

Summary

Runaways can be defined as youth who purposely leave home knowing that they will be missed.

Though Mark Twain, Horatio Alger, Ernest Hemingway, and others have idealized youth leaving home and striking out on their own, the typical American runaway is largely escaping from a situation perceived to be intolerable, usually familial in origin, rather than escaping to a new life with requisite hopes and possibilities.

Historically, the runaway played a part in the settling and industrialization of this country. The social and economic cost of running away is now much greater than the benefits and running away does not currently constitute romantic or acceptable behavior.

Alex Thomas

The National Center for Health Statistics indicates that approximately 10% of the American youths ages 12 to 17 have run away from home at least once. The percentage of runaway males slightly exceeds that of runaway females. Runaways have more police encounters than non-runaway peers, have a higher incidence of drug abuse, and are more likely to come from homes without both natural parents. Runaway youths come from all sociocultural backgrounds and do not, as popularly thought, come primarily from lower socioeconomic classes.

For many runaways, escape can be viewed as an understandable, nevertheless socially unacceptable, deviant adaptation to life stress. It would be, however, an oversimplification to always conceptualize the runaway as pathological. For some, running away is a rational decision in view of environmental circumstances. An important distinction for determining the seriousness of runaway behavior is whether it is symptomatic of an overall disturbed personality that will become more evident in adult life or whether running away is an essentially isolated event in an otherwise normal development. Follow-up studies of runaways indicate that repeated incidences of this behavior are related to continued deviancy as an adult, but a single act of running away is not necessarily related to adult maladaptive behavior.

Information on runaways comes from juvenile court case reviews, police records, Childrens' Services cases, and records from residential centers for runaways. There may be a large number of runaways who are never referred to authorities or whose behavior has been quietly handled apart from civil activity. Overall, runaways who enter the legal system may be substantially different from those who do not.

The families of runaways often have a high incidence of internal conflict, divorce, and residential mobility. School experiences of the runaway can often be characterized by failure, truancy, special education placement, and social ostracism by peers and teachers. A typical runaway reacts to the cumulative experience of home and school frustration by flight. There are significant social class differences in the specific circumstances that precipitate flight, but a commonality across class lines is that the potential runaway feels intolerably alone and alienated from the primary supportive institutions, family and school.

Treatment programs have had varying success, and those involving the runaway's entire family in counseling or other intervention strategies are the most successful in terms of adequate later life adjustment. Generally, the more the family of the runaway acknowledges the unhappiness and discontent which led to running away, the more successful are the results. The challenge to the school psychologist is to create a relationships that successfully incorporated both the runaway and the family in mutual acknowledgement of a problem.

Runaway behavior is an indication of alienation and loneliness, and constitutes sufficient reason for concern and intervention on the part of the school psychologist.

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Enuresis

Rex Shahriari

Abstract: History, etiology and treatment of enuresis are discussed. Research on developmental, psychological and medical aspects is reviewed. Treatement strategies are evaluated and recommendations are made for effectively helping the enuretic child.

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History, Definition, and Background

History:

That enuretic children should survive the "cures" for their condition is testimony to the human will to survive. In a classic of medical history Glicklich (1951) traces popular explanations of etiology and prescriptions for treatment. "In Wydah [West Africa] the child is taken to the lagoon and washed, this being repeated a second time if necessary. If the habit is then not stopped, a large frog is attached to the child's waist, which so frightens the offender that a cure is usually affected. In Abomey, however, beating is the customary punishment." (Herskovitz, cited in Glicklich, 1951). In ancient Europe more benign prescriptions were popular.

> The following things are naturally efficacious. Burn the crop of a cock and give it to the patient to drink in tepid water when fasting on the flowers of the white oxeye [chrysanthemums] in like manner; or, shave down the testicle of a hare into fragrant wine, and give to drink; or give calamint and myrrh in a draught before supper; or give the toasted seed of the wild rue to drink every third day. Let the privy be anointed with cimolian earth mixed with the Juice of Peridacs (Paul of Aegina, cited in Glicklich, 1951).

The flesh of a ground hedge-hog, ground and imbibed cerebrum of a hare, the lung of a kid (the four legged variety), and the bladder of a young breeding sow were at one time accepted treatments for enuresis.

The eighteenth century ushered in treatments of choice such as applying blisters to the sacrum and the use of more direct measures as a yoke "made with iron, but for use must be covered with velvet. It moves upon a joint at one end, and is fastened at the other by catches at different distances placed on a spring. It must be accommodated to the size of the penis, and taken off whenever the patient finds an inclination to make water. This instrument is exceedingly useful because it always answers the purpose and seldom galls the part after a few days wearing." (Sharp, cited in Glicklich, 1951).

Thus the male enuretic has been the subject of a variety of innovative treatments. He has had his offending organ hermatically sealed, bandaged, blistered, plugged, and circumcised. Each treatment modality has had it's advocates and detractors. Two cases have been reported where the penis had been cut away by use of ties about this organ (Vogel, cited in Glicklich, 1951). Is it any wonder that Freud postulated the concept of castration anxiety?

Female enuretics have fared better, probably because of their less accessible anatomy. One recommended treatment was the introduction of an Indian rubber bag beyond the hymen into the vagina. Inflating the bag with air compressed the lower bladder neck and urethra and effectively prevented urination. Of course, non-sexist cures such as flagellations were equally effective with girls as with boys. (Slade, cited in Glicklich, 1951). One can only speculate as to what imaginative uses would have been found for Playdough or Superglue had these been available in past centuries.

With the harnessing of electricity new techniques were devised. Electrical stimulation of the sacrum and the interior of the urethra enjoyed widespread popularity for treatment of both male and female enuretics. A method using electricity was described by Nye (cited in Glicklich, 1951):

> Attach one pole of an electric battery to a moist sponge or a metallic plate fastened between the shoulders of the patient and the other to a dry sponge placed over the meatus urinarius [opening of the urethra on the body surface through which urine is discharged.] When this has been done and arranged so as not to annoy the patient, let him be put to bed and the circuit of the bed completed. The sound of the battery will soon lull the patient to sleep. While the sponge is dry, no electricity passed through the body of the patient and his slumber is undisturbed, but the moment the patient begins to urinate, the sponge is moistened and becomes a conductor of electricity. The circuit is completed through the body of the patient and he or she is at once aroused, awakened and caught in the very act and thus caveat is entered by the will of the patient as well as by the electricity against further proceeding at least for this time. A repetition of a like experience for a sufficient number of times ought, I am inclined to think to cure the patient.

Other devices were devised for the quick arousal of the patient. Water soluble tablets were used to trigger streams of cold water or air to awaken the patient at the moment that urination began. A cleverly simple device consisted of a piece of an inner tube twisted and held together by means of a soluble tablet. This assembly was then placed in a pocket sewed to the outside of a pair of snug underpants where urine would most likely reach the tablets. "When the tablets were wet, the rubber untwists with sufficient force to wake any child who has a real inclination to rise instantly." (Smith, cited in Glicklich, 1951).

Modern treatments of enuresis do not differ as much in principal as in method from cures of the past. Medication, surgery, conditioning, and therapy have replaced pulverized bladders, circumcision, beatings, and prayers.

Definition:

The third edition of the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-III) includes the following description:

> 307.60 Functional Enuresis
> The essential feature is repeated involuntary voiding of urine during the day or at night, after an age at which

> continence is expected, that is not due to any physical disorder. The disorder is somewhat arbitrarily defined as involuntary voiding of urine at least twice a month for children between the ages of five and six and once a month for older children.
>
> Functional Enuresis is often referred to as Primary if it has not been preceded by a period of urinary continence for at least one year, and secondary if it has been preceded by a period of urinary continence for at least one year. Either of the above types may be nocturnal (most common), defined as the passage of urine during sleep time only, diurnal, defined as passage of urine during waking hours, or both diurnal and nocturnal. There is no provision for coding these distinctions [i.e., either type is coded 307.60]. (p. 79)

To meet the diagnostic criteria for Functional Enuresis the following must be present:

A. Repeated involuntary voiding of urine by day or at night.

B. At least two such events per month for children between the ages of five and six, and at least one event per month for older children.

C. Not due to a physical disorder, such as diabetes or a seizure disorder. (DSM-III, p. 80)

The DSM-III definition and diagnostic criteria reflects a marked change from previous psychiatric thinking. In the 1967 *Comprehensive Textbook of Psychiatry* Pierce operationally defined enuresis as ".... bed wetting or clothes wetting in persons over the age of 3...." (p. 1380). The DSM-III Definition reflects a more lenient and accepting view of the problem.

Bakwin (1961) makes a distinction between urinary incontinence and enuresis. In individuals with urinary incontinence passage of urine is automatic and occurs without the person being able to control the bladder. The enuretic, by contrast, is aware of bladder distention and can control its emptying most of the time. Bakwin further suggests that children who regress after the birth of a sibling should not be considered enuretic. Regression to bed wetting, demands for attention, or wanting to be bottle fed are common after a young child is displaced by a new sibling. These "symptoms" occur frequently enough to be considered normal and are usually transient.

In this chapter the term enuresis is used in accordance with DSM-III. Unless specified otherwise it is assumed that the enuresis is functional. The term enuresis as used in this chapter refers to nocturnal enuresis unless diurnal enuresis is specified. The term incontinence refers to inappropriate voiding of urine of functional origin.

Background:

A newborn's behavioral repertoire is mostly reflexive. The voiding response is automatic; urination occurs as soon as the bladder is distended. This is a subcortical reflex arc over which the infant has no control. The development of bladder control follows a maturational pattern similar to the ability to sit, speak, or walk. The ability to retain urine is usually achieved before the ability to release the sphincters. The development of urinary continence is normal in humans as it is in all other health mammals (Mowrer & Mowrer, 1938). The age at which bladder control is developed appears to follow a bell shaped curve somewhat skewed to the right. There are, however, differing norms which depend on cultural demands. In primitive, tropical cultures there is greater leniency toward poor bladder control. Kidd (1906, cited in Mowrer & Mowrer, 1938) reports that among the Kafirs nocturnal continence is not expected until the child has cut second teeth. Whiting (cited in Mowrer & Mowrer, 1938) reports an example of an eight year old New Guinea girl whose bed wetting resulted in adult disapproval only because it happened in the home of a stranger. Familial expectations, training strategies, effort expended in teaching the child, and psychological milieu would exert a significant influence on the age by which bladder control is achieved. Macfarlane, et al. (1954) found that in a group of normal children nocturnal micturition (urination) continued at age 3 in 18 percent of the boys and in 31 percent of the girls. Klackenberg (1955) found that 13 percent of his subjects were still bed wetting at age 3. Wallgren (1949) found that the majority of children achieved night time continence before 3. Roberts and Schoellkopf (1951) found that 56 percent of 2 1/2 year olds in their study had achieved both diurnal and nocturnal continence. Pierce (1967) stated that 88 percent of children are dry by age 4 1/2. By 7 1/2 about 93 percent are dry, and of the remaining 7 percent almost all are dry by age 17.

The literature reviewed suggest that approximately 50 percent children are dry by age 2 1/2 and by age 3 roughly 75 percent are dry. If micturition continues beyond the age of five, in the absence of any medical explanation then the diagnosis of functional enuresis in accordance to the DSM-III criteria would be appropriate.

Incidence:

Data on the incidence of enuresis differ widely and is probably inaccurate. Many factors are responsible for this. Populations studied, definition used, the setting of the studies, e.g., psychiatric clinic vs. general population, etc. all would have a marked effect on the data. Obviously if one used DSM-III's age of 5 in incidence studies, one would find fewer cases of enuresis than if age 3 is used. Likewise a higher incidence of enuresis is to be expected among the mentally handicapped; this would be a correlated developmental delay.

Socio-economic differences is a consistent finding in incidence studies. Bloomfield and Douglas (1956) found that bed wetting occurred least often in children of relatively prosperous salaried professional groups and among children of agricultural workers and was the highest among the children of manual workers. Children of white-collared workers fell in an intermediate position. With increasing age these differences were more striking. Among children between ages 7 and 8 there were twice as many wetters in the poorer group as there were in the more prosperous ones.

Racial and ethnic differences are also apparent in the incidents of enuresis. Pierce (1967) cites a higher incidence in Negro children. Michaels and Goodman (1934) found enuresis to be more prevalent in non-Jewish than in Jewish children. Levy (1934) states children in Chicago welfare stations located in poor Jewish areas had a strikingly lower incidence of enuresis than those in welfare stations located in German gentile or Polish gentile neighborhoods.

The noted ethnic and cultural differences can, at least in part, be explained by environmental differences and child rearing practices. In homes where there is a high premium placed on neatness and cleanliness there is typically a greater effort made to train the child and greater disapproval of "accidents." On the other hand where personal hygiene is not emphasized, if the child sleeps with a sibling who wets, or if the child must walk a distance to use a toilet, then the incidence of enuresis is likely to be higher. Data on incidence may also be biased by the fact that certain populations, e.g., higher socio-economic and some ethnic groups, may be more reluctant to admit that their child is enuretic.

Sex differences do exist among enuretic children. DSM-III presents the following data: "... at age 5, 7% for boys, and 3% for girls; at age 10, 3% for boys, and 2% for girls; and at 18, 1% for boys, and almost nonexistent for girls" (p. 80). Pierce (1967) states that "Enuresis occurs twice as frequently in males as it does in females." The reasons for reported sex differences are not clear. Undoubtedly sex stereotypes lead to different expectations and training practices.

Etiology

Heredity:

It is generally accepted that there are familial patterns in enuresis. Enuretics seemed to beget a higher incidence of enuretics (Kendall, 1978). Pierce (1967) finds it plausible that a gene may be influential in enuresis. He noted that many enuretics cease to wet at approximately the same age as their blood relatives did. This finding has led to the suggestion that enuretics may have inherited a slowly maturing neural apparatus and cannot sense or act on the signal that the bladder is full. Frary (1935) reports that in his sample 32 percent of the fathers and 20 percent of the mothers were themselves enuretic in childhood. Bakwin (1961) surveyed a group of 25 physicians with enuretic children and found that of the 50 parents 23 (46 percent) had been enuretic during childhood. In 72 percent (18) of the families at least one percent had been enuretic. In five families both parents had been enuretic. By contrast, one in only seven cases (28 percent) did neither parent give a history of enuresis. In this study 17 (40 percent) of the 43 siblings over age 4 of the enuretic children had a positive history of enuresis. Bakwin concluded that the high incidence of bed wetting during childhood among parents of enuretic children is suggestive of a hereditary basis for enuresis. He further points to the fact that in this highly educated sample 9 of the 25 families had only fathers who were enuretic in childhood. These fathers were not likely to tell their spouse or influence the mother's training of toileting in their children. Additional support for the hereditary basis of enuresis comes from children living in Kibbutz. Kaffman (1962) reports a significantly higher incidence of enuresis in other members of the families of enuretic children than in families of non-enuretic children.

The hereditary explanation of enuresis is given additional credence by twin studies. Bakwin (1971) studied a group of twins. The total sample consisted of 676 children; of these 408 were monozygotic and 268 were dizygotic. Sixty-eight percent of the monozygotic twins were concordant (both twins were enuretic) compared to 36% of the dizygotic twins. In the boys, 70% of the monozygotic twins were concordant while 31% of the dizygotic twins were concordant for enuresis. In the girls, the results were not statistically significant but were in the same direction. The available family data in this study showed that when a parent was enuretic 40% of the children were also. By contrast when neither parent gave a history of enuresis only 15% of the children were enuretic. When a twin was enuretic the incidence in the siblings was 25%. When the twins were not enuretic, the incidence of enuresis in the siblings was 8.5%. This study was with twins reared together; thus, the environmental factors could not be discounted. However, Bakwin notes that the findings are not unlike those found in co-twin studies involving other problems (e.g. psychosis) where the twins were separated.

In a recent study Fisher and Fisher (1981) compared the values and child rearing practices of three groups of children. Their population included 25 children referred to the clinic either for enuresis alone or in combination with other symptoms, 30 non-enuretic children with other symptoms, e.g. tantrums, and 56 normal children. No differences were apparent between the parents of the enuretic and the parents of the non-enuretic but symptomatic children. Significant differences did exist between the parents of the normal group and the other two. The results suggested that parents of the normal children were less authoritarian and more likely to encourage autonomy in their children. The results of this study suggest that, since no differences were found between parents of enuretic and non-enuretic but symptomatic children, enuretics may indeed have a hereditary predisposition for enuresis.

Developmental Delay:

A maturational lag is often suggested as the major cause of enuresis and is a plausible explanation in most cases. Kendall (1978) notes that the infant's bladder operates as a reflex organ. When filled it expels urine by contractions which are not inhibited by the higher cortical centers. Maturational delays could, therefore, account for delayed control over the bladder and sphinchter muscles. Training is destined to be unsuccessful if the child is not physiologically ready. If one accepts the developmental explanation of functional enuresis, to the exclusion of others, then one would be inclined to give the advice: "Don't worry he/she'll outgrow it." This is in fact true for the vast majority of enuretics. However, many enuretics do not "outgrow" the problem. The rate of military enlistees who are discharged because of enuresis would attest to this fact. Also there are many social pressures come to bear on the enuretic child. Going to camp, slumber parties, field trips and the like would be very distressing to an older enuretic child. For the young adults the embarrassment caused by enuresis may be great enough to have a significant impact on their emotional and social adjustment. Waiting and hoping that the problem will go away is not always a viable option.

Bladder Control:

Muellner (1960) posits a developmentally related etiology for nocturnal enuresis. He notes that voluntary control of micturition is not present in infants. To become continent the child must: 1) become aware that the bladder is full, 2) be able to hold urine for a brief period when the bladder is full or nearly full, 3) develop the capability of starting the stream at any stage of bladder fullness, i.e. being able to go before the last second. All this requires physiological maturation and practice. Muellner graphically describes the small boy who ".... at first stands at the toilet bowl, arches his back and balloons out his abdomen and announces that he can't void, only to wet spontaneously a few minutes later" (p. 715). Normally the child learns to coordinate the various small and large muscle groups and becomes continent. With increasing bladder control should come an increase in bladder capacity. Muellner notes that the bladder capacity of a 4 1/2-year-old is double what it was at age 2. He further states that the bladder capacity must increase to about 10 to 12 ounces before the child can hold the entire output of a night's urine and avoid wetting. In a study of 30 enuretic children Muellner found evidence supporting research (Bloomfield & Douglas, 1956; Vulliamy, 1956) which point to a smaller bladder capacity and more frequent diurnal voiding patterns in enuretics. Other research (Lindeholm, 1966; Starfield, 1967; Troup & Hodgson, 1971) have documented functionally smaller bladder capacities in enuretic children. These findings may not, however, be generalized to all enuretics. The implications of this research for treatment will be discussed in a later section.

Organic Etiology:

A detailed evaluation of the medical causes of enuresis is beyond the scope of this chapter and certainly beyond my expertise. The nonmedical professional working with an enuretic child and his parents should be cognizant of etiological factors which may warrant a referral to a physician. Logically the most prudent first step would be a thorough medical evaluation in every case.

Enuresis is typically due to functional reasons, i.e., there is no apparent organic defect or disease responsible. Reported incidence of organically caused cases range from 3 percent (Silbertstein, 1973) to 10 percent (Pierce, 1967). Possible organic causes of enuresis include: local irritation from meatal (opening) or urethral strictures, phimosis (constriction of the orifice of the prepuce so that it cannot be drawn back over the glans), adherent clitoris, highly acid or alkaline urine, upper urinary tract infections, and a host of other structural defects or conditions. Seizure disorders, diabetes and renal disorders may also cause enuresis.

Gonzales (1978) states: "My approach to evaluating the child with enuresis varies with the child's sex and age. If the only complaint in younger children is nocturnal enuresis and a careful history fails to demonstrate any daytime abnormality, I am satisfied with a complete physical examination and urinalysis...." (p. 4). Gonzales recommends additional studies if there are positive indications or if enuresis continues unabated beyond age eight. These may include laboratory studies, cystogram (placing a catheter into the bladder and filling it with contrast material and taking a "picture" of the bladder), or an intervenous pylogram to get a "picture" of the kidneys. An often cited uralogic cause of enuresis is stenosis (narrowing or constriction) of the urethra or the opening on the surface.

Allergies:

Serendipity led Breneman (1959, 1965, 1978) to investigate the role of allergies in enuresis. He reports that in 1953 he took a dose of a new ulcer medication which caused, among other side effects, an inability to empty the urinary bladder. Subsequently he used this and other medications, including antihistamines, to treat chronic refractory enuretics. Additional studies led him to state: "These findings quite convincingly showed that the bladder is not immune as an allergic shock organ" (1959, p. 91). He posits that when an allergen is present the mucosa of the bladder become irritated and thus less sensitive. This reduced sensitivity in turn leads to lowered awareness of fullness of bladder or the urge to void (Breneman, 1965).

Breneman (1959) points to food allergies as the primary culprits but adds that psychogenic factors can lead to enuresis if sufficient allergic foundations exist much as in the case of asthma. Below is a listing of the offending foods in 60 subjects he studied.

Milk.....24
wheat....20
egg......17
corn.....13
chicken...4
orange....4
pork......3
tomato....3
peanut....2

beef........2
apple.......2
fish........2
berries.....2
peas........2
chocolate...2
rye.........1
cauliflower.1

A follow-up study with 100 subjects supported the hypothesis that allergic reactions to the food listed above may be the cause of primary enuresis. This study extended the list of food allergens to include: spices, beans, grapes, anise, potatoes, oats, pineapples, melon, and ice. The role that allergies may play in the etiology of enuresis needs to be further investigated. Breneman's findings, extensive and cogent as they are, were clinical studies. Additional controlled, double blind studies, are needed.

Sleep:

It is a common observation that bed wetters are sound sleepers, ergo, all sound sleepers are bed wetters. Fortunately this is not the case. A number of investigators have studied the relationship between disorders of arousal, depth of sleep, and rapid eye movement (REM) sleep in enuretics and non-enuretics. In a study of 25 adult enuretics, Strom-Olsen (1950) found these subjects tended to fall asleep quickly and sleep soundly. They were hard to arouse even in the mornings when sleep is usually light. A course of treatment using large doses of amphetamine at bedtime helped lighten the sleep. In a sample of 25 adult enuretics, Dittman and Blinn (1955) found no relationship between depth of sleep and enuresis. Nor did they find any EEG abnormalities but reported that micturition in young children coincided with slow-wave sleep, and in young adults, with patterns resembling wakefulness.

Broughton (1968) concluded that nocturnal enuresis and certain other sleep disorders are associated with arousal from slow-wave sleep and virtually never associated with REM sleep. This study would suggest that enuresis occurs during a deep sleep phase with no associated dreams. Pierce, et al. (1961) reports that dreams occur approximately two hours after the enuretic episode.

The findings of Mikkelsen, et al. (1980) contradicts research pointing to arousal disorder as a possible explanation of enuresis. In a study of 40 severely enuretic boys (20 with associated psychiatric disturbances; 20 with no other disturbance) they found that the data did not support the conclusion that enuresis is associated with an arousal disturbance. Nor did they find any significant differences in the sleep patterns of the two groups of subjects.

Based on this limited review one is led to the definite conclusion that depth of sleep and arousal disorders may or may not be related to nocturnal enuresis. A strong case can be made for the finding that enuretic episodes usually do not occur during REM, i.e., dream phase, of sleep. This flies in the face of the general observation that the enuretic often wets the bed while dreaming that he is using the toilet. Many enuretics can recall vivid dreams of using a toilet very appropriately only to awaken and find another laundry load to be washed. Whether such dreams do in fact occur at the time of micturition or are secondary elaborations is not clear. Freud postulated that one function of dreams is to preserve sleep, e.g., when one hears the alarm clock one might dream of a fire engine. If the disturbing noise occurs only in a dream, then one need not awaken. Likewise, if one goes to the bathroom in one's dream then one can continue to sleep undisturbed.

Psychopathology:

Much has been written on the connection between psychological disturbance and enuresis. Neither space nor energy allow an exhaustive review of the often contradictory literature on the psychological connection. The sources cited are only a sample.

Michaels and Goodman (1934, 1939) conducted studies with a large population of neuropsychiatric patients. A high percentage (19.3%) of these patients were enuretic. They found that enuresis occurred most frequently among the groups of psychopathic personality (32.2%), psychiatric behavior problems (43.8%) and mental deficiency (33.3%). They also found more males to be enuretic. Some of their conclusions (applicable only to primary enuretics over the age of 10) were:

- The triad association of male, psychopathic personality and enuresis seems worthy of serious consideration.
- Persistent enuresis is the prototype of the expression of deficient inhibitory tendencies, a weak ego and a reflection of an ill-balanced person of the types belonging to the psychopathic personality, the delinquent and the psychiatric behavior problem. Its roots are imbedded in the instinctual layer of the personality. It indicates a faulty integration in the component levels of the personality and a lack of maturation.
- If enuresis is such a prophetic indicator of psychological reactivity, the need for more intensive study of enuresis in the individual person is self apparent. (1939, p. 66)

One cannot help but wonder what conclusions might have been reached if acne was found to correlate with psychopathology. Would the incidence of acne in an adolescent prophesize future delinquency? Such studies with psychiatric patients fail to consider that a vast majority of enuretics never come to the attention of researchers. Data based on a selected population, which fails to partial out concomitant variables may inadvertantly damn many who are not disturbed.

The psychoanalytic view has been and continues to be a frequent explanation for enuresis. That many males often have an erection when the bladder is full has led to the sexual implications of micturition (Marcuse, 1924-25, cited in Mowrer & Mowrer, 1938). A hydraulic explanation may be more parsimonious. Campbell (1918, cited in Mowrer & Mowrer, 1938) reviewed evidence from psychotics and concluded that in at least some individuals urination may be a manifestation of repressed libidinal urges. --If it feels good, there must be a sexual implication.

Gerard (1939) arrived at some damning conclusions which are probably a reflection of psychiatric thinking of the time. From a sample of 72 cases she eliminated 11 where a physiologic base could be established for enuresis or where faulty training could be clearly demonstrated. She states unequivocally that "...all the remaining cases, 61 in number, presented definite neurotic patterns of which wetting represented one symptom in the syndrome" (p. 51). She found enuretic boys to be passive in attitude, retiring and self-depreciatory, and avoiding of rough play for fear of physical injury. They were dawdling in their daily activities, more demanding for help, and indulged in evasive petty lying. These boys were underachievers and distractible. The enuretic girls fared better. They were competitive in play and depreciating of males in general. She summarized that:

> [T]hese functional enuretics disclosed a common etiology, fear of harm from persons of the opposite sex. This fear, in turn, probably developed as a result of three factors working together: destructive wishes toward the rival parent, traumatic sexual experiences on information and experiences of parental seduction or rejection, depending upon the sex of the patient. Of importance in terms of treatment of the case, this later group proved resistant to therapy of a superficial nature because the emotional conflict was deeply repressed and partially solved by unhealthy defense mechanisms. (p. 57)

Recent psychiatric thinking reflects a more benign attitude toward the etiology of enuresis; psychogenic pathology is not presumed though such may be concomitantly present or even responsible for the problem. Topia, Jekel, and Domke (1960) state that:

> There seems to be enough lack of corroboration to justify the requestioning of the traditional contention that enuresis is an emotional symptom. The fact is that several studies, including the present, actually contradict such a contention. It appears that enuresis is but an ubiquitous happenstance, the frequency of its appearance being more related to age cut-off point and other statistical mechanics than to adjustment, other emotional symptoms, or future prospects of mental ill-health. (p. 65)

Faulty or Inadequate Learning:

A most plausible "state of the art" explanation of functional enuresis is based on classic and operant learning theories with the operant view having stronger evidence. The application of conditioning principals in training bladder control is neither new nor limited to western cultures or to the human species. Anyone who has housebroken a pet will attest to the fact that learning must occur before the pet owner can walk about barefooted. Arapesh children become continent through a subtle process. "When an infant urinates or deficates, the person holding it will jerk it quickly to one side to prevent soiling his or her own person" (Mead, 19, p. 41). Mowrer and Mowrer (1938) state that:

> The widespread practice among primitive peoples of allowing the infant to sleep until a fairly advanced age in intimate contact with the body of the mother (usually nude) would also presumably tend to insure some response of the mother and consequent disturbance of the child whenever elimination occurs in the night, ... (p. 438)

Flicklich (1951) gives an ingenuous though primitive example of operant conditioning. A snail is placed near the meatus of the sleeping female enuretic. As long as the child is dry the snail remains immobile and sleep is undisturbed. Should micturition occur, the snail will move and thus awaken the child.

Operant and classical conditioning are the processes of learning involved in the above strategies. The sleeping child is disturbed from sleep by a jerk from its mother or by the movement of the snail. Sufficient repetitions of this process will lead to associating the fullness of bladder with micturition and subsequent awakening. In due time the snail is no longer needed.

In becoming civilized we had to find substitutes for the more natural and nurturing ways -- snails are not as abundant and mothers do not sleep in close contact with their child. Punishment of incontinence was substituted for the teaching of bladder control, hence the twang from a taut rubber band, an electric shock through the body, blisters, circumcisions, and the often administered flaggelations. These treatments were effective not because of the inherent superiority of one over the others but because of the learning principle involved. The offending child became continent through single-trial learning -- at least those with functional enuresis. The children who because of urologic defects or maturational delay could not control micturiation may be the one seen in therapy.

The majority of children develop bladder control with or without a systematic training program. This is most likely due to social learning and modeling. Once the child has the requisite maturity to be capable of controlling micturition voluntarily, he is likely to try and emulate "grown-ups." Wanting to be like them, the child tries to become continent. In addition to modeling and social learning the child's behavior is shaped by adult behaviors. When the child remains dry the parents will provide positive reinforcers. When the child has an accident the parents will show disapproval. This process, subtle and unplanned as it may be, will gradually bring the child into conformity with the family's expectations. Children become labeled enuretic when there is a developmental delay, a physiological problem, hereditary predisposition, psychological stress, or environmental factors which interfere with this normal learning process.

Assessment and Diagnostic Procedues

Unlike other topics in this book, the diagnosis of enuresis is not problematic. By definition children under five years old are not considered enuretic. An older individual who wets the bed only at night has nocturnal enuresis. One who wets in the day time has diurnal enuresis, and one who wets both day and night has both diurnal and nocturnal enuresis. Those who have never demonstrated bladder control are considered primary (persistent) enuretics. Those who have had bladder control at one time and have subsequently become enuretic are considered secondary (regressed) enuretics. Individuals with no demonstrable medical cause are considered functional enuretics.

The assessment of the etiology of enuresis can be difficult but extremely important in suggesting the treatment strategy. Careful, detailed personal and family histories are essential in evaluating the enuretic. The history is likely to be far more productive than any psychological evaluation except in cases where mental retardation is suspected. As noted earlier the retarded have a higher incidence of enuresis which is likely due to a generalized developmental delay. The history should, at a minimum, cover the following:

1. History of enuresis in both parents, siblings, and blood relatives and ages when they developed bladder control.

2. Establishing if the enuresis is primary or secondary, nocturnal, diurnal, or both.

3. General health of the child, recency of latest physical examination, and whether or not the physician has been alerted to the problem.

4. Ages at which other developmental milestones were achieved by the child.

5. Parental attitudes and anxieties about the enuresis, e.g. do they view the problem as merely an inconvenience or are they angry, ashamed, or guilt ridden.

6. The sleeping arrangement in the home. Does the child sleep alone? Is toilet close by? Is there a night light?

7. Presence of psychological stressors, this is particularly important in cases of secondary enuresis. Is there a new sibling? Have there been any changes in the family's residence, jobs, health? Is there marital discord or disagreement over child rearing practices? Has the child or siblng recently started school, or camp? Is the child continent at home but not away from home?

8. The child's diet and eating patterns may provide useful information. Does the child tend to be incontinent when he eats certain foods? Is there a relationship between the amount of fluids taken and wetting incidents?

9. The child's diurnal voiding pattern may be very significant. Questions regarding daytime frequency and urgency should always be asked. Having to "go" often and having to go "bad" may be symptomatic of structural or systemic problems warranting careful medical evaluations. These problems may be particularly apparent on shopping trips or car rides where the parents have to find restrooms often and quickly because the child gives them little warning that she/he has to go and where any delay may result in an accident.

10. The child's nocturnal voiding patterns. Does the child wet the bed several times per night? How long after retiring does the child wet?

11. The child's reaction to incontinence. Does the child seem ashamed? Does she/he try to hide the fact? Does the child seem oblivious to the incontinence?

12. Strategies used by the parents to teach bladder control. Have they tried to teach bladder control systematically or was control assumed to occur on its own? Do they "rub the child's nose in it?" Do they assume responsibility for changing the bedding or is this left up to the child? Do they scold, lecture, or belittle the child?

13. Other emotional or behavioral concomitants. Is the child aggressive, "hyperactive", withdrawn, anxious, friendless?

14. Review of other available information, e.g. school records, health information, previous evaluations.

Once a detailed history has been obtained then a treatment procedure can be developed which will depend on one's understanding of the problem and suspected etiology.

Intervention

The treatment of enuresis should begin with a medical evaluation, even in cases where the enuresis is believed to be functional. The secondary enuretic whose incontinence may coincide with the birth of a sibling may also have a urinary infection. The latter may be responsible for the enuresis and could be overlooked because it coincides with a psychological stressor.

Developmental:

If the suspected etiology is maturational delay then the course of treatment may be no treatment at all. This is in fact the advice given to many parents particularly where a hereditary predisposition is suggested by the history. However, other factors must be considered before one tells the parents "not to worry, she'll outgrow it." First, data on incidence clearly show that not all enuretics outgrow the problem. A conservative estimate would be that at least one percent of all enuretics remain enuretic well into adulthood and perhaps for life. Second, the enuresis may primarily be due to environmental factors and not to delayed development. The family patterns in enuresis may not be entirely due to hereditary but to shared experiences in training children. The fact that enuresis occurs more often among lower socio-economic families may be reflection of their tolerance for the enuretic and less effective treatment of the condition. Third, enuresis may lead to emotional problems. The enuretic child may be ashamed of the problem, will be reluctant to go on overnight stays with friends, and the continued enuresis is bound to lead to intrafamilial tensions.

Hoping that the problem will go away is not, in my opinion, a viable option. The pain that the enuretic may endure while waiting may be too great. Treatment is the more compassionate approach.

Medical and Pharmaceutical:

An array of medical interventions are available in treating enuresis. Some of the literature reviewed (Weiss, 1978, Pierce, 1968, Merck Manual, 1980, Langlois, 1975, Bardole, 1982) indicate that medication and minor surgery are used when indicated. In cases where the enuresis is a symptom of a condition, e.g. diabetes, renal dysfunction, urinary infection, the treatment is aimed not at the symptom but at the cause. Where enuresis is thought to be due to urethral or meatal stenosis (constriction of the urethra or the opening of the urethra on the surface), dilation by surgery may be indicated. Mattelor and Debruyne (1974) recommend this procedure for girls where distal urethral stenosis is clearly demonstrable. They note that "The intervention is a minor one and requires only a 48-hour hospitalization" (p. 396). In a study of 29 patients they report a spectacular cure with 9 patients; 15 with unmistakable improvement, and 5 patients where the procedure failed.

A variety of medicines have been used in treating enuresis. These include imipramine (Tofranil), imipraminepamoate (Tofranil PM), oxybutynin chloride (Ditropan) which are most frequently cited in the pharmaceutical treatment of enuresis. Tofranil is a tricyclic antidepressant which has been successfully used in the treatment of enuresis as well as other conditions such as school phobia and hyperactivity. Kumin, et al. (1970) and Werry, et al. (1974) found Tofranil effective in the treatment of enuresis. Weinberget, et al. (1973) report a clinical study in which Tofranil alleviated enuretic symptoms in some depressed children. Whether the positive effects of Tofranil are due to its anti-depressant action or its effect as a stimulant is not clear. Dorison and Blackman (1962) found both Tofranil and placebo to be equally affective in treating adult enuretics. Tofranil PM is a slow-release, long-acting form of the drug. The dosages used vary with the age and weight of the patient. Usually the medical regimen starts with a low dosage and is increased gradually. Tofranil does have potential side effects although these are not reported to be common if proper dosage is used. Drowsiness, insomnia, sadness, autonomic and gastrointestinal symptoms, loss of weight, seizures, postural hypotension and raised diastolic pressure are possible side effects (Werry, et al., 1974).

According to its manufacturer, Marion Laboratories, Inc., "In patients with uninhibited neurogenic and reflex neurogenic bladder, cystometric studies have demonstrated that Ditropan increases vesical capacity, diminishes the frequency of uninhibited contractions of the detrusor muscle and delays the initial desire to void. These effects are more consistently improved in patients with uninhibited neurogenic bladder." The reported side effects of Ditropran are relatively few. The manufacturer reports that the safety of Ditropan has been demonstrated in children age five and older.

Dietary Control:

As noted earlier Breneman (1959, 1965, 1978) postulates that food allergies are responsible for many cases of enuresis. He advocates the elimination of many common foods such as milk, eggs, bread, pork, beef, and the chocolate until the allergen is identified. Most parents and children would have difficulty with such a spartan diet. The theory behind this treatment approach makes good sense but its practice may be impractical. Also the placebo effect should be considered.

Bladder Enlargement:

> The treatment of enuresis can now be placed on a rational basis. Enuresis can now be cured by controlling the child's urinary output during the day to enlarge its bladder capacity. This is done by forcing fluids during the day and teaching the child to "hold" the urine as long as possible. (Muellner, 1960, p. 716)

This approach to the treatment of enuresis has its advocates and detractors. Starfield and Nellits (1968) prescribed a six month bladder stretching program for 83 enuretic children. This regime included unrestricted fluid intake during the day, voluntary retention to the point of minimum discomfort at least once a day, and recording of the amount of urine passed after maximum holding. The children were also encouraged to practice interrupting the urine stream. At the end of the six-month period 55 of 83 children (66%) were said to have improved, 6 (9%) were reported to be cured, 9 (11%) had only minimal enuresis, and 20 (36%) had moderate enuresis. The degree of improvement was correlated with the increase in bladder capacity.

Troup and Hodgson (1971) compared the bladder capacity of enuretic and non-enuretic children and found them to be similar. They also determined that the actual bladder capacity of enuretics is two fold that of their functional capacity, i.e., enuretics need to void before the bladder is full. They postulate that this is due to a maturational delay and recommend that bladder enlargement, conditioning, or medication may all have the net effect of helping the child increase functional bladder capacity.

Bouchard, Joly, and Cardinal (1981) compared the efficacy of diurnal urinary retention procedure to that of a control group. Fourteen children ages 7 to 14 were assigned to two groups. The experimental group was asked to gradually increase the period of retention between the initial urge and actual voiding during the day. The control group was asked to keep records in anticipation of a future treatment. Based on the results the authors concluded that the clinical importance of diurnal retention procedure is more limited than generally suggested by the literature.

Psychotherapy:

> The 1% - per-month patients that are cured spontaneously must represent those that the psychiatrists claim as their cures. (Breneman, 1975, p. 1116)

Psychotherapy of one kind or another has often been the treatment of choice in dealing with enuresis. The assumption being that the enuresis is a symptom of underlying psychopathology. As noted earlier, this is not always the case. It is possible that in some cases enuresis may be an expression of hostility, regression, or release of libidinal energy. In most cases however, the presence of enuresis is probably coincidential with the psychological problems. The correlation between enuresis and psychopathology may be due to the selected sample of enuretics who come to the attention of researchers. If a causative relationship does exist between enuresis and psychopathology it is likely that the former causes the latter. The manifested psychological problems may be due to the tension, anger, and feelings of inadequacy caused by the enuresis, i.e., enuresis is the cause and not a symptom of psychopathology. The effectiveness of psychotherapy in treating enuresis has not been dramatic. DeLeon and Mandell (1966) found little difference between psychotherapy and no-treatment "cure" rate in comparison groups of enuretic children. The percentage of cure was 10.2% for those receiving psychotherapy and 11.1% for those receiving no treatment.

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Hypnosis:

Hypnosis has been advocated as effective in the treatment of functional enuresis by Kroger (1977). He suggests that psychogenic factors may be initially responsible for enuresis but habit formation may maintain the problem.

> Often the symptom is a manifestation of a passive rebellious interplay between child and parents. Once the child realizes, following his initial bed-wetting, that he now possesses a weapon against the parents, he may maintain a conditioned pattern long after the original cause for his hostility is forgotten. When this reflex becomes firmly entrenched, the harder he tries not to wet the bed on a volitional level, the more likely he will be to lose control during sleep. (p. 289)

Kroger's approach to the treatment of enuresis is to initially establish rapport with the child. This is followed by visualization induction techniques and posthypnotic suggestions for bladder control. The parents are also advised to encourage the child and to emphasize the dry nights. Autohypnosis is then used to maintain dryness.

Stanton (1979) has successfully treated enuretics with a short-term application of hypnosis; usually two sessions are adequate. The first session consists of three phases: 1. establishing rapport, 2. induction and post-hypnotic suggestions, and 3. repetition of the suggestions while the subjects's attention is focused on another task. The second session follows one week later and include phases two and three. If necessary a third session is held with a repetition of phases two and three.

Shahriari (1981) reports the successful treatment of nocturnal enuresis in a female teenager with diurnal and nocturnal enuresis and other behavior problems. Posthypnotic suggestions were effective in terminating the nocturnal enuresis.

The difficulty in evaluating the effectiveness of hypnosis in treating enuresis is the dearth of controlled studies. The sources cited report case studies where the effectiveness of hypnotic techniques were assumed and other factors such as the placebo effect, learning, or the psychotherapeutic effects of treatment were not considered.

Conditioning Techniques:

As noted earlier neither the use of conditioning techniques nor the use of electricity are not new in treating nocturnal enuresis (recall the snail and the electric current through the body). However, it was not until Mowrer and Mowrer (1938) that these principles were combined to devise a practical appliance for the treatment of enuresis. Their "bell-and-pad" apparatus consisted of two bronze wire meshes separated by a layer of absorbent cotton fabric quilted together and placed under the child. The wire meshes are then connected in series to a bell and to a low voltage power source. So long as the child is dry the circuit is not closed and sleep is uninterrupted. As soon as urine dampens the layers of fabric between the wire meshes the circuit is completed, the bell rings, and the child awakes. With repetition the child should learn to wake up before the act of micturition. Once dryness is established the use of the bell-and-pad can be discontinued. The apparatus is safe and causes no discomfort. Since its introduction the bell-and-pad has been refined and is commercially available through Sears under the trade name Wee-alert.

Efficacy studies on this method date back to Mowrer and Mowrer's original 1938 article. In a group of 38 children (ages 3 to 13 years) nocturnal enuresis was eliminated in every case with the maximum time required being two months. Mowrer and Mowrer emphasized that no other treatment was used. Fluids were not restricted and no other reinforcement was made available except for the knowledge that the pad would be removed when it was no longer needed. In no case was symptom substitution observed, rather personality changes were uniformly favorable. Relapses did occur but these were attributed to unfavorable environmental influences. Mowrer and Mowrer caution that supervision by someone trained in psychological principles is very important in the correct use of this method.

The success of the conditioning techniques has been impressive. In reviewing results of 18 conditioning studies where an apparatus similar to the bell-and-pad were used Young (1965) found the success rate to range from 100 percent to 63 percent. These were in sample sizes ranging from 11 to 445 subjects. The criterion for success varied as did the duration of the treatment. Reported relapse rate in these studies ranged from 8 to 52 percent. Young compared the efficacy of drug treatment (not Tofranil or Ditropan) with that of the conditioning. His findings were that 65% of the subjects were successfully treated with conditioning compared to 36% successfully treated with drugs. The average treatment time with conditioning was 2.2 months and 5.2 months with drug treatment. Relapses occurred in 13% of the conditioning subjects and 28% of the drug treatment subjects. Young states that:

> ..if the defaulters were removed from my series the success-rate would be 92%. In no case was there any evidence of "symptom substitution", and the children were much happier once they became dry. The experience of other writers and myself clearly indicates the exceptional value of this treatment, and it is difficult to see any contraindications or danger in its use. (p. 560)

Caceres (1979) has suggested a clever modification of the Mowrer apparatus. A tape recorder is substituted for the bell. When urine closes the electric circuit the voice on the tape awakens the child with instructions to get up and use the toilet. This may be more palatable to the parents and child. Research is needed to see if it is more effective than the standard apparatus.

Dry-Bed Training:

Azrin, Sneed, and Foxx (1972) developed a multi-faceted behavioral program for the treatment of nocturnal enuresis in severely retarded institutionalized patients. The dry-bed training (DBT) procedure utilizes an intensive training program which includes the use of a urine alarm, potty alert apparatus (signals when voiding has occurred in the toilet), hourly awakening, positive practice when accidents occur and follow up. The DBT procedure proved highly effective and dramatic improvements were made by the patients. The DBT procedure was modified and tried with normal subjects. In a well controlled study (Azrin, Sneed, and Foxx, 1974) the DBT procedure reduced bed wetting incidents from a median of 7 times per week (100%) to zero times per week. Post checks at 2, 3, 4, and 5 months revealed that bladder control had been maintained. The DBT procedure is the most promising yet developed for the rapid elimination of nocturnal enuresis. It does require intensive one-night elimination of nocturnal enuresis. It does require intensive one-night training for which parental commitment and understanding is essential. Below is the outline of the DBT procedure used by Azrin, et al. (1974, p. 150-151).

I. Intensive training (one night)

  (A) One hour before bedtime

    1. Child informed of all phases of training procedure .

    2. Alarm placed on bed

    3. Positive practice in toiletng (20 practice trials)

      (a) child lies down in bed

      (b) child counts to 50

      (c) child arises and attempts to urinate in toilet

      (d) child returns to bed

      (e) steps (a), (b), (c), and (d) repeated 20 times

  (B) At Bedtime

    1. Child drinks fluids

    2. Child repeats training instructions to trainer

    3. Child retires for the night

  (C) Hourly awakenings

    1. Minimal prompt used to awaken child

    2. Child walks to bathroom

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3. At bathroom door (before urination) child is asked to inhibit urination for one hour (omit for children under 6)
    (a) if child could not inhibit urination
        (i) child urinates in toilet
        (ii) trainer praises child for correct toileting
        (iii) child returns to bed
    (b) if child indicated that he could inhibit urination for one hour
        (i) trainer praises child for his urinary control
        (ii) child returns to bed
4. At bedside, the child feels the bed sheets and comments on their dryness
5. Trainer praises child for having a dry bed
6. Child is given fluids to drink
7. Child returns to sleep

(D) When an accident occurred

1. Trainer disconnects alarm
2. Trainer awakens child and reprimands him for wetting
3. Trainer directs child to bathroom to finish urinating
4. Child is given Cleanliness Training
    (a) child is required to change night clothes
    (b) child is required to remove wet bed sheet and replace it with dirty laundry
    (c) trainer reactivates alarm
    (d) child obtains clean sheets and remakes bed
5. Positive Practice in correct toileting (20 practice trials) performed immediately after the Cleanliness Training
6. Positive Practice in correct toileting (20 practice trials) performed the following evening before bedtime

II. Post training supervision (begins the night after training)

(A) Before bedtime

1. Alarm is placed on bed

2. Positive Practice given (if an accident occurred the previous night)

3. Child is reminded of need to remain dry and of the need for Cleanliness Training and Positive Practice if wetting occurred

4. Child is asked to repeat the parent's instructions

(B) Night-time toileting

1. At parents' bedtime, they awaken child and send him to toilet

2. After each dry night parent awakens child 30 minutes earlier than on previous night

3. Awakening discontinued when they are scheduled to occur within one hour of child's bedtime

(C) When accidents occurred, child receives Cleanliness Training and Positive Practice immediately upon wetting and at bedtime the next day

(D) After a dry night

1. Both parents praise child for not wetting his bed

2. Parents praise child at least 5 times during the day

3. Child's favorite relatives are encouraged to praise him

III. Normal routine - initiated after 7 consecutive dry nights

(A) Urine-Alarm is no longer placed on bed

(B) Parents inspect child's bed each morning

1. If bed is wet, child receives Cleanliness Training immediately and Positive Practice the following evening

2. If bed is dry, child receives praise for keeping his bed dry

(C) If two accidents occur within a week, the Post-Training Supervision is reinstated

As the above outline shows, the DBT procedure combines a number of techniques including direct instructions, urine alarm, positive practice, and reinforcement. The DBT procedure outlined utilized a trained therapist.

Ballard and Woodroofe (1977) utilized the DBT procedure but with trained parents taking the place of the therapist. Their results suggested that, with proper training, professional intervention is not necessary during the initial all-night training program. Their study also included a group where the DBT procedure did not include the urine-alarm. The initial results indicated that the DBT procedure was effective without the urine-alarm. However, in a subsequent study, Nettelbeck and Langeluddecke (1978) compared the effectiveness of the DBT procedure, with and without the urine alarm, and a control group. Their findings showed the DBT procedure with the urine alarm to be significantly superior to the DBT procedure without the urine alarm or the control group. They concluded that the "...Dry-Bed training without the aid of an enuresis machine would serve no useful purpose as a first method of treatment in situations where apparatus was not immediately available" (p. 404). Ballard and Nettelbeck (1981) compare the effectiveness of the standard urine alarm procedure and the dry-bed procedure. Their results were similar to those of Nettelbeck and Langeluddecke (1978). DBT was significantly more effective than the standard urine-alarm procedure except in cases where the DBT did not include the alarm apparatus. They attributed this difference to the fact that the alarm allowed for more immediate consequences and reinforcement.

Other Behavioral Interventions:

Gresham (1980) used a differential reinforcement of low rates of responding (DRL) to reduce bedwetting. The subject was an 8 1/2-year-old boy with secondary enuresis. The S's mother was instructed in the procedure which included recording of wet and dry nights during baseline and treatment periods. After a seven-day baseline phase the following procedures were followed: evening fluid intake was restricted, the S voided before retiring, the S was praised if he had a dry night, the S stripped the bed and remade it with fresh linen if the bed was wet in the morning. No punishment or scolding was used. During the seven-day baseline phase bedwetting occurred every night. A 22-day DRL treatment was then initiated with the changing criterion of 40%, 20%, and 0%. During this phase the S received positive reinforcement, e.g. bowling trips, movies, etc. if he met the criterion. The enuretic events dropped to 0% after the second treatment day and remained at 0% for the 47 days after treatment was initiated and data kept. Long-term post checks were not reported.

Azrin and Besalel (1981) report that positive practice was effective in eliminating bed wetting in a 12-year-old boy. Whenever the S was found to have wet the bed he practiced lying in bed and pretending to be asleep followed by jumping out of bed and going to the bathroom. This was repeated 10 times. The bed-wetting decreased to intermittent occurrences. Positive practice was increased to 20 repetitions of the procedure after wetting had occurred and the following day even if the bed was dry. Positive practice was expanded to include urine retention. During the fifth week of treatment only one incident of wetting occurred. Long-term data was not reported.

Johnson and Thompson (1974) report that modeling coupled with positive reinforcement was effective in reducing both diurnal and nocturnal enuresis in a 5-year-old boy with dull normal intelligence and other behavioral problems. The S was present when a younger sibling voided in the toilet and was praised by the mother. The S asked if he too would be similarly reinforced for voiding appropriately. A procedure of positive reinforcement was then initiated with modeling by the younger sibling when appropriate. Both nocturnal and diurnal enuresis occurred at significantly lower frequencies.

Charting and positive reinforcement were effective in eliminating bed wetting in a seven-year-old boy with primary nocturnal enuresis (Shahriari, 1981). The S had been wanting an expensive toy. He was told that he could have the toy once he had met the goal of remaining dry. A large chart was mounted on the bedroom wall along with a picture of the desired toy. The S earned a point for every dry night and lost three points for any wet nights. Positive social reinforcement was also provided in the mornings if the S had been dry. The procedure was immediately effective with only one wetting incident on the ninth night. Post check at five months showed that the S had had only one wet night, that occurring while on an out-of-town trip.

A response-cost procedure was used to eliminate nocturnal enuresis in eight and eleven-year-old female S's (Allgeier, 1976). The S's were required to record on a chart mounted on the refrigerator whether they had been wet or dry. No contingency was placed on enuresis but they were penalized one-tenth of their allowance for failing to sign the chart and fifty cents for lying. After five weeks fluid intake was denied after 6:00 p.m. and recording continued. Fluid intake was restored after three dry weeks. No enuretic events occurred from the 15th through the 20th weeks. Thus, the self-monitoring procedure was effective.

Diurnal Enuresis:

Relatively little has been written on the problem of diurnal enuresis. Usually diurnal enuresis is associated with nocturnal enuresis. Day wetting occurs most often in children with primary enuresis. Diurnal enuresis alone is rare. In a review of the literature Berg (1979) found a considerable range on incidence data. Information on non-referred children suggests that approximately 15 percent of enuretic children have both nocturnal and diurnal wetting and about 10 percent of all enuretic children have diurnal wetting only. This incidence data is from a 1956 study of Swedish school children and may not be generalizable to American children of today. There is agreement however that day wetting alone is relatively uncommon. The literature reviewed by Berg also indicates that girls are more likely than boys to have diurnal wetting in isolation. Berg mentions "giggle micturition" which may be embarrassing to the child but should not be considered as enuresis.

Literature on the treatment of diurnal enuresis is sparse. Medication, retention, and conditioning are suggested treatment modalities but efficacy studies are lacking. Kashinsky (1974) and Fried (1974) have developed compact, low-cost alarms which can be worn by the child. These devices work on the same principal as the bell-and-pad apparatus. No data on their effectiveness is available.

Monitoring Methods

Monitoring the effectiveness of treatment of enuretic children is not problematic and should be an integral part of treatment. This is true regardless of the treatment modality. In cases where medication or other medical treatment has been used the parents should be encouraged to keep the physician informed. When an allergen is the suspected cause, it is essential that the parents be fully aware of the procedure and carefully monitor the child's food intake. When psychotherapy, hypnosis, or conditioning techniques are used the therapist should request that the parents maintain daily records. The charting procedure in most conditioning approaches is part of the treatment. The therapist should keep in daily contact with the parents during the initial treatment phase to encourage and advise them. Once bladder control has been established the therapist should maintain intermittent contact with the parents to provide help if relapse occurs.

Conclusions and Considerations

Enuretic children do not comprise a homogeneous group. No one explanation of etiology is satisfactory in explaining all enuretic cases nor is there agreement on the best treatment choice. Intervention strategies are a function of the professional who is called on for help and his/her training and understanding of enuresis. The physician may recommend medication, surgery, or avoidance of allergens. The behaviorally-oriented psychologist or psychiatrist may recommend instrumental conditioning. The dynamically oriented therapist may initiate psychotherapy. Yet others may recommend bladder stretching or waiting till the problem goes away. Some view the "gold-star" approach as demeaning; others see surgery as barbaric and medication as unnecessary.

The enuretic does have a problem. Arguments that enuresis is a cultural phenomenon, is due to developmental delay, or caused by hereditary influences and consequently need not or should not be treated have been advanced. The explanations are valid in regard to possible etiology but the "waiting till it goes away" approach is ill-advised. This would be analogous to the position that reading is a culturally determined need with definite developmental and hereditary patterns. These factors may in part account for a child's reading disability but they do not negate the need for special help.

In a normal healthy child bladder control follows a developmentally dependent sequence and is usually achieved by the age of three. Normally, the child will emulate the behaviors of older role models and gradually masters expected toileting behaviors. Environmental consequences shape the child's voiding behaviors. This process is often so subtle as to seem non-existent and natural; a process not unlike language acquisition. Anatomic, physiogenic, psychogenic, heriditary, environmental influences may interfere and result in delayed bladder control, i.e., enuresis.

Enuretic children and their families can benefit from professional guidance. The most important first step is to provide information to the parents and the child. Doing so can allay their anxieties, guilt, and frustration and clarify commonly held misconceptions. This can best be done during the course of the initial interview when the history is obtained. The child should be included in this interview if it is thought that the child and the parents can discuss the problem calmly and objectively. The child should be excused if the interview regresses to finger pointing, lecturing, or an experience which could be humiliating to the child. If the child is excused, he/she should be fully apprised immediately after the parent interview. At a minimum, the following information should be given to the family:

1. Enuresis is not uncommon. There are many enuretic children and adults. Enuresis is not an awful or unsolvable problem.

2. An explanation, geared to the parents and the child's level of understanding, as to possible etiologies of enuresis. The child and the parents are often surprised and relieved to learn that there are hereditary, developmental, and learning patterns involved. The child may feel less ashamed or isolated if (s)he learns that his/her parent(s) or sibling had the same problem. This information may also help the parents feel less guilty and empathize more with the child.

3. The notion that enuresis is a symptom of psychological problems is one which is held by many parents. It should be stressed that enuresis usually is not due to repressed hostility, laziness, or parental ineptitude. The frustrations and tensions present are probably due to the enuresis and not the cause of it. In the absence of other indications of psychological problems there is no need for psychotherapy.

4. It may be helpful to draw a bell-shaped curve (skewed to the right) and use it to explain the developmental pattern of enuresis. This will help reassure both parents and child that most children will outgrow the problem even without any treatment.

5. The parents and child should be assured that, with their cooperation, the problem can be eliminated.

The first step in treatment should be a visit to the physician to rule out the possibility of a medical basis for the enuresis. The parents should fully understand the reason for this. The medical evaluation is just that -- an evaluation. The physician is not being asked to treat the enuresis unless there is a clear need for medical intervention. As a professional courtesy the physician should be informed that the referral to him/her was made for an evaluation and that he/she is not being asked to treat the problem. This is an important consideration. Physicians are often inundated with non-medical problems with implicit pressure that they treat it. The physician may appreciate knowing that another professional is prepared to deal with the problem. Treatment should not be postponed if the parents cannot or will not follow through with a medical evaluation. In most cases the enuresis is not due to a medical problem. The medical evaluation is a precaution. However, if a systematic nonmedical treatment of the enuresis is unsuccessful, then it behooves the professional to encourage a visit to the doctor even if the parents are resistant.

The treatment choice will depend on the parents' attitude, circumstances, willingness to follow through with treatment. Almost any approach to treating the enuretic will probably be successful initially. This Hawthorne effect is probably due to the expectation for change. The literature reviewed indicates that medication, particularly Ditropan and Tofranil, and avoidance of food allergies are the most productive medical interventions. The allergy approach is lacking in controlled, double blind studies. Surgery (meatomy or urethral expansion) may be effective but this may be due to one-trial learning and not due to the efficacy of surgery itself. If the enuresis is in fact functional enuresis, a non-medical approach is more defensible.

The conditioning approaches to the treatment of functional enuresis are the most effective and best validated. Dry-bed-training, which uses the urine alarm apparatus and intensive training, produces the most dramatic results and should be the first choice of treatment. The urine alarm apparatus without the DBT procedure has the next best track record and should be the treatment of choice if the parents are unwilling or unable to follow through with the DBT procedure. Various operant conditioning procedures, e.g. DRL, positive reinforcement, etc. have also been successful in eliminating bed wetting and should be tried if neither the DBT or urine alarm procedures are acceptable to the parents or child. The net effect of all these approaches is to help the child learn bladder control. The professional should be creative and develop a tailor-made program for the child. Urine retention, taking responsibility for changing the bedding, hypnosis, and psychotherapy all have potential for success and should be considered. Psychotherapy should be reserved for situations where there are other psychological problems and then these concomitant problems should be the target of therapy and not the enuresis itself. Neither the notion that enuresis is a symptom of emotional disturbance nor the possibility of symptoms substitution are supported by research.

Secondary enuresis is common in the face of environmental stess, e.g., birth of a new sibling. Depending on one's theoretical position one may choose to explain this phenomenon as regression, inability to accommodate, or a disruption in the shaping process. Regardless of the explanation of etiology the treatment should focus on providing the child with emotional support and retraining.

Diurnal enuresis is not uncommon when a child first starts school. The child's and parent's reaction is usually one of embarrassment. Most teacher's attribute this to immaturity and do not make a systematic effort to teach appropriate toileting behavior to the child. The situation is not unlike that of a teenager on his first date. He may need to go to the bathroom but may not have the poise to gracefully excuse himself. The teenager can hold back, the five-year old may not be able to. When a child does wet he/she should be reassured. The teacher should take the time to familiarize the child with the facilities. The teacher should then tactfully guide the child through several practice trials. Usually this is sufficient to teach the child the appropriate behaviors.

Resources of Particular Interest

The Wee-Alert Alarm (catalog No. 8 AH 1300) is available from Sears and Roebuck at a cost of $37.99. The deluxe model Lite-Alert Alarm (catalog No. 8 AH 1301) costs $59.99. Additional bedding pads are also available if needed. These are available for $7.49 (catalog No. 8 AHA 1172).

The following publications are useful for both parents and professionals:

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2. Azrin, H. H., & Foxx, R. M. Toilet Training in Less Than a Day. New York: Simon & Schuster, 1974.

3. Foxx, R. M., & Azrin, N. H. Toilet Training the Retarded: A Rapid Program for Day and Nighttime Independent Toileting. Champaign, Illinois: Research Press, 1973.

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The Forgotten Ones: Helping Children and Adolescents Cope with Death

Anne M. Elbert

Abstract: The primary purpose of this chapter is to create an awareness on the part of school psychologists of the significant effects that the death of a loved one can have on the behavior of children and adolescents and of intervention techniques used to assist youngsters in coping with such losses. A review of the development of the concept of death in children is presented to aid psychologists in understanding students' reactions to death. The normal grief process is also described because of its importance in helping school psychologists distinguish between normal and abnormal grief. In addition, information regarding the effects on youngsters of special situations of bereavement, such as the suicide of a parent, is presented. Suggestions for assisting youngsters in dealing with crisis situations, such as deaths due to homocides, are offered. Also considered is the school psychologist's role as a facilitator of death education. A bibliography of fiction and nonfiction for children and adolescents relative to the topic of death is included, as well as an annotated bibliography of suggested readings for teachers and/or parents.

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Introduction

Elisabeth Kubler-Ross, in her book On Death and Dying (1969), refers to children and adolescents as the "forgotten ones" during the time that there is a death in the family. She indicates that this is not because no one cares, but because most people feel uncomfortable talking to children about death. Indeed, a survey by Gorer (cited in Furman, 1974) of bereaved families in which a parent has died showed that approximately 70% of the surviving parents told their children under 16 either nothing about the other parent's death or "fairy tales" (e.g., "He's gone to sleep.") which they themselves did not believe. Koch (1977) also states that the facts of a death are not generally explained to children and that they are seldom encouraged to show their feelings.

Although reluctance on the part of adults to discuss a death with youngsters is understandable, in view of such factors as fear of losing emotional control while explaining the death or a desire to spare children painful feelings, the suppression of the opportunity for youngsters to grieve can produce adversive consequences. Children and adolescents who have experienced the death of a significant person in their lives and who have not successfully resolved their grief may develop psychological problems later in life (Kellerman, 1981).

For instance, bereavement of a parent, which one out of every 20 youngsters will experience before the age of 18 (Statistical Abstract of the United States, 1981), has been suggested to be a contributing factor in the etiology of anorexia (Feinstein, 1981), delinquency (Kliman, 1977), schizophrenia (Watt & Nicholi, 1979), and gender identity problems in adolescents ("The Father Factor," 1979). In addition, Jacobsen and Ryder (1969) cite studies linking the death of a parent with such pathological consequences as suicide, anxiety reactions, psychoneurosis, sociopathy, and difficulty maintaining steady employment. Although many youngsters are able to accept a parent's death without incurring irreparable damage (Koch, 1977), the present consensus of opinion seems to be that bereavement of a parent produces significant stress which, at least, has the potential for creating serious psychological problems in the lives of children and adolescents.

In view of the adversive influence that unresolved grief can have on the development of youngsters, it is disheartening to discover that bereaved children and adolescents also appear to be "forgotten" in the professional literature for school psychologists. A review of past and present issues of two major journals for school psychologists (i.e., Journal of School Psychology and School Psychology Digest) revealed a scarcity of death-related studies.

This chapter is intended, therefore, to raise the consciousness of school psychologists relative to the significant effects that the death of a loved one can have on the behavior of children and adolescents, as well as create an awareness of the intervention techniques that can be used to assist bereaved youngsters.

Concept of Death

To assist psychologists in understanding how youngsters may react to a death, knowledge of how children conceptualize death is needed. Studies have yielded various models to explain the stages that children progress through in their understanding of death. Age-related models, such as that proposed by Nagy (1948), suggest that the concept of death develops in orderly stages according to chronological age. In her classic study, Nagy identified three stages of development. In the first stage, occurring between the ages of three and five, the child does not perceive death as irreversible. Instead, death is viewed as temporary, like a departure or sleep. The dead are believed to continue to breath, eat, drink, and grow but under changed circumstances, such as within the confines of the coffin.

Between the ages of five and nine, the second stage occurs. Children tend to personify death, perceiving it, for example, as a skeleton or ghost. They are aware that death exists but feel that it is not inevitable, that they can successfully elude it.

In the third state, at about age nine, children begin to develop a realistic understanding of death as final and universal.

Other researchers, such as Ilg and Ames (1955), have also described changes in children's concepts of death based on chronological age.

Koocher (1973), however, studied concepts of death as they relate to the level of cognitive development of children, ages six to 15 years. For conceptualizing cognitive development, he used Piaget's theoretical framework. The results of his study showed that children at the preoperational level generally do not have a concept of the permanency of death. Since the cognitive understanding of children at this level is mainly egocentric, they do not use the experiences of others to any significant extent. They rely instead on fantasy and magical thinking. For instance, they may believe that they could make someone dead by wishing it to happen.

Children at the concrete-operational level are able to provide specific reasons for death. They demonstrate a knowledge of concrete ways for inflicting death (e.g., naming weapons, poisons, or assaultive acts). Later, during this stage, they become aware of internal causes of death. Also, as they progress through this stage, there is an increased awareness that biological functions cease with death, from the realization that the dead cannot eat or speak to the understanding that the dead cannot dream.

Children at the formal-operational level tend to perceive death as a natural phenonmenon. Causes of death may include accidents or the gradual, physical deterioration of the body. They realize that death is universal and final.

Koocher's research demonstrated that children perceive death more realistically as their cognitive development progresses through the preoperational, concrete-operational and formal-operational stages. His study is significant, because it indicates that children's concepts of death are determined not by age alone but by cognitive level as well. In this sample, for instance, children whose understanding of death was at the concrete-operational level ranged in age from six to 13 years.

The importance of not basing a child's understanding of death on age alone is of special significance when considering the concepts of death of mentally disabled youngsters. Research in this area presently appears to be limited to a study by Sternlight (1980). He investigated the concept of death in 14 moderately and mildly mentally disabled boys and girls, having a mean age of 16 years and a mean IQ of 49. The findings of Sternlight's study generally supported the results of Koocher's investigation. Sternlight found, for instance, that most of his subjects who were at the preoperational level of cognitive functioning did not perceive death as final or have realistic concepts of when they would die. Like Koocher, Sternlight concluded that a child's concept of death is determined by cognitive level, and not by age alone.

Both the cognitive and age-related models revealed that children's conceptualizations of death are developmental, progressing from an initial, immature level to a later, more mature one.

Limited attention has been given to adolescents' perceptions of death, since most authors feel that, by the age of nine or ten, children have developed a mature concept (Cook, 1974). Yet, although adolescents are able to comprehend death in adult terms and may think about it, they usually fantasize death as a situation from which they will escape or be rescued from at the last minute and continue living. Adolescents tend to live intensely in the present, and, as a result, death is generally viewed as a remote possibility.

Understanding how children conceptualize death will assist psychologists in comprehending children's reactions to such events. For instance, children at the preoperational level may feel guilty about the death of family member, believing that they caused it, since they once expressed a wish for the person to die.

Also, knowledge that children's concepts of death are different from adults can prevent unfortunate misunderstandings. For example, children may demonstrate little sadness over the death of a relative, because they do not conceive death as final and expect the person to return. Yet, adults who are unaware of this could, by their expressions of disapproval of the children's behavior, make them feel guilty over their insufficient show of grief.

Assessment Procedures

A student may be referred to the school psychologist specifically for assistance in coping with a death. In such instances, it is assumed that the behaviors that the student is exhibiting and which are of concern to the teacher or family correlate with the occurrence of and are a reaction to the death. Obtaining information regarding the student's behaviors, both before and after the death, can be done to further confirm this. In order to be able to monitor the course of the grief and the effectiveness of the intervention techniques, the psychologist should also obtain information relative to the intensity (e.g., frequency and duration) of the initial presenting symptoms. This can be accomplished through such means as behavioral checklists and reports from the teacher and family.

A student may also be referred because of problems, such as inattentiveness, acting out behavior, or a decline in achievement. If no specific cause for the student's behavior can be determined, consideration should be given to the possibility that the behavior may be due to a delayed or unresolved grief reaction to a past death or be a reaction to a recent death unknown to school personnel. An example of this latter situation is presented below:

> In one school a 15-year-old boy began to steal repeatedly. This school had no tradition of communicating with the parents, and the first his mother knew about the problem was when she received a letter with the boy, who had been sent home. At no time during the discussions that had gone on between him and the staff over the thefts had the boy told them that his father had died during the previous holidays (Miller, 1974, p. 399).

Because of the possibility of similar occurrences, the psychologist should inquire, through an interview with the youngster or the parents, about the deaths of loved family members or pets. Inquiries about family members who are critically ill or impending deaths should also be made, as such situations can cause anticipatory grief reactions resulting in behavioral symptoms similar to the ones mentioned before.

If no deaths of significance to the youngster are reported, then the psychologist can assume that the behaviors for which the student was referred are due to causes other than a grief reaction resulting from a death. Parenthetically, it is important to note that a youngster's problem behaviors may be the result of a grief reaction to a loss caused by other factors, such as loss of a parent because of separation or divorce.

If the student has experienced the death of a loved person or pet, the school psychologist will need to consider next the appropriateness of the student's reaction to the death. Again, behavioral checklists and reports from teachers and family relative to their observations of the behaviors of the youngster will provide the psychologist with important sources of data for use in determining the normalcy of the reactions of the bereaved student. To use the data effectively, however, the school psychologist needs, not only to understand the youngster's concept of death, but also be familiar with the grief process.

Normal Grief

Individuals who have studied the grief process, such as Bowlby (1961), Kubler-Ross (1969), and Hardt (1978) believe that the bereaved progress through certain stages as they adjust to death. Although the specific number of stages proposed by different investigators may vary, as well as the names accorded each, the grief process is generally characterized by progression from an initial state of shock and denial, to one of anger and rage, to one of disorganization and despair, and finally to a state of acceptance and hope.

The following remarks, by a boy who was 12-years-old when his mother died of cancer, provide an example of the first phase of the grief process in which the youngster has difficulty believing that the person is dead:

> I just couldn't realize her death until a few days later when I saw her dead in the open casket. . . .but it was still hard for me to get hold of the fact that my mother was dead, that she was forever gone (Krementz, 1981. pp. 70-71).

Similar feelings of denial and disbelief were expressed by a teenage girl whose father, a fireman, died of a heart attack after fighting a fire:

> I just sat there crying and saying, "I can't believe it, I can't believe it," because he died at three o'clock and that day at three o'clock I had been walking home from school with my friend and we were talking about another fireman who had died. She had asked me, "What would you do if your father ever dies?" and I said, "My father wouldn't ever die. I wouldn't be able to believe it. I couldn't take it" (Kremetz, 1981, pp. 90-91).

When denial of the person's death is no longer able to be maintained, the next reaction is usually one of anger and resentment. Described below are a nine-year-old's feelings of anger towards his mother, who, while taking a walk with her younger son Timmy, was killed in an accident involving two taxi cabs:

> I was really mad at Mom. I never blamed the taxi driver. I don't know why, but I didn't. I just took it for granted that accidents happen and it wasn't their fault but Mom should have known better. She should have jumped back more quickly like Timmy did. Timmy was mad too--mad that he hadn't been able to pull her back. He felt helpless that he couldn't help her, and that was rough. I even asked Dad, "Do you think Mom knows she's ruined our lives?" (Krementz, 1981, p. 24)

The anger may be directed at the person who dies because the youngster feels abandoned, or the anger may be displaced onto other persons, as illustrated by the following example of a ten-year-old boy whose grandmother died:

> At first, I was angry with her for dying and leaving me. I wondered why she hadn't lived through her illness. I wondered if she died because she didn't care about us any more. Silly thoughts. Next I blamed the doctor, and finally I felt it was God's fault for not answering my prayers. I was angry at myself remembering the times my grandmother had asked me to do something and I hadn't. I even became angry at my two best friends because they still had grandmothers and I didn't (Burgess-Kohn, 1978, pp. 72-73).

Guilt may also result from the youngster's feelings of responsibility for the death, that is, the death is viewed as a punishment for the youngster's sins or misbehavior. This sentiment was expressed by Carla, who was eight-years-old when her father died of cancer:

> I remember thinking that maybe his dying was some kind of punishment. I broke his typewriter in his office one time, and another time I broke his swivel chair and I thought it was as if I'd done all this bad stuff so, you know, his dying was like a punishment (Krementz, 1981, p. 78).

After experiencing denial and anger, the youngster may develop feelings of despair and depression. Frequent crying and feelings of sadness and helplessness may occur. At school, the youngster may become withdrawn. Daydreaming and difficulty concentrating on schoolwork often result in a decline in academic performance.

Behavior problems at school may also develop. Chaplain Whitmer (Note 1), who is associated with the Grief Recovery Group at St. Luke's Hospital in Davenport, Iowa, related an incident in which a reaction to grief took the form of behavior problems caused by a high school girl in one of her classes. Because this particular class tended to be uninteresting to the girl, she often found herself daydreaming about her dead father. The memories evoked by her daydreaming made her feel like crying. To avoid the embarrassment of losing emotional control in front of her classmates, she would act out and cause a disturbance.

Physiological reactions may also occur as the youngster attempts to cope with grief. Insomnia, trembling, nightmares, nausea, headaches and loss of appetite are examples (Jones, 1977).

Finally, there is acceptance of the loved one's death. Although the dead person is still remembered, the youngster is no longer angry or depressed about the loss. Renewal of an interest in life was expressed by an eight-year-old-boy whose father committed suicide:

> When he first died, it was harder, but after a couple of months, it started being easier on me. After about six months I felt a lot better and started playing again. I started getting more active and doing things I used to do when my father was alive. Like playing baseball. Only I practice with one of my sisters instead (Krementz, 1981, p. 15).

And by an 11-year-old-girl whose father died three years ago:

> It's hard to live without one of your parents, but I think you become adapted to it and after a few years it becomes natural. I know I can't sit there and daydream that he's going to walk in the door. Because I know it's not going to happen. I've even started doing some of the things that he used to do--like mowing the lawn, which is something I never dreamed I could do. And trimming the weeds and cleaning up the yard. And Jackie takes care of the garbage. These are things we feel real good about because we're doing something my father used to do and also because it makes us feel good about ourselves. Every year gets a little easier (Krementz, 19891, p. 83).

Not all youngsters may experience each stage in the grief process. As Grollman (1977) points out, variables, such as the youngster's concept of death, the reactions of significant adults, the circumstances of the death, and the closeness of the child or adolescent to the deceased, will affect how the youngster reacts.

Yet, typical stresses tend to produce typical responses (Miller, 1974). Thus, knowledge of the grief process can serve two important functions for the school psychologist. First, irrespective of whether the bereaved youngster goes through each and every phase of the grief process, the school psychologist can understand what feelings and behaviors are likely to be exhibited and the normalcy of these reactions. Second, knowledge of the grief process may help the psychologist in assessing the progress a youngster is making in adjusting to a death. This would be especially true of adolescents, since their conceptual understanding of death approaches that of adults.

Abnormal Grief

While there are no specific criteria for pathological mourning, unusual or extreme reactions of youngsters may be an indication of abnormal grief (Grollman, 1976; Kellerman, 1981). Examples of such reactions would include a significant decline in school work, excessive daydreaming, and severe delinquency--if none had existed previously (Jones, 1977). Also suggestive of pathological grief would be failure to demonstrate any grief or fixation on the dead person and the continuing belief that the person will return (Jones). For example, if a ten-year-old who is cognitively aware that death is final continues to ask when his father is coming back, six months after the funeral, this would be considered an unusual reaction (Kellerman, 1981). Speaking of the deceased in the present tense--"My sister likes music."--also tends to be characteristic of abnormal grief (Volkan, 1974). Another example would be extreme over-identification with the dead person (Miller, 1974).

In addition to the intensity or exceptionality of the symptom, duration is another variable that can help in determining whether the grief reaction is abnormal or not. Soon after a death, depending upon its significance to the child or adolescent, there may be a period of acute grief. This may last from six to eight weeks, during which time extreme or intense reactions may be exhibited (Melges & DeMaso, 1980). Then, although there are individual differences, about the eighth to twelfth month, the bereaved youngster seems to begin to accept the death and to reorganize his or her life accordingly. This process tends to be more conclusively completed by the end of the second year. However, there is no specific cut-off point at which a youngster should be expected to stop grieving. Estimates have varied from six to nine months (Weissman, 1977) to as long as two to four years (Melges & DeMaso).

In distinguishing between normal and abnormal grief, Chaplain Whitmer (Note 2) feels an awareness both of the general duration and the phases of the grief process is important, because it enables a person to recognize that what might be considered abnormal in one context or set of circumstances would be viewed as normal in another. He related an incident describing a family's concern about a son's visiting the cemetery every day since the loss of a parent a few months ago. Chaplain Whitmer advised the family not to interfere with the son's way of working out his grief, helping them to understand that, at the present time, such behavior was not abnormal and that the son's visits to the grave might be helping him to cope with the reality of the death. Gradually, as time passed, the boy discontinued his daily visits. If the behavior had continued for more than a year, the possibility of its being a pathological reaction would be more realistic.

Chaplain Whitmer also feels that children and adolescents grieve longer and deeper than adults. For instance, he points out that if a parent dies when the person is a child, then the grief will tend to be reworked in adolescence and adulthood, especially when a significant event occurs at which the parent would have been expected to share in the joy and honor of the occasion, such as a graduation. Furthermore, according to the Chaplain, children and adolescents tend to feel misunderstood because, after the funeral, people expect them to stop grieving within a relatively short period of time, such as several days or weeks.

More important than the length of time the grief process takes, however, is the progress of the course of grief. Youngsters who exhibit extreme reactions resulting in a major disruption of normal, everyday living and for whom there is no improvement over time should be considered as demonstrating abnormal grief.

Another significant point to remember is that when abnormal grief does appear, it may be "concealed behind the false mask of another condition" (Volkan, 1974, p. 31). Instances have been reported where persons who have been diagnosed as schizophrenic have been found instead to be suffering from unresolved grief reactions to death and whose symptoms were quickly alleviated through re-grief therapy (Volkan). Also, because it is difficult to distinguish grief from depressive symptomatology (Akiskal & McKinney, 1975), psychologists, at the high school level in particular, need to be aware that referred adolescents who exhibit symptoms of depression, such as apathy, sadness, insomnia, loss of weight and difficulty in concentrating, may have an unresolved grief reaction to a death that occurred years earlier (Melges & DeMaso, 1980). To lessen the possibility of misdiagnosis, psychogists should consider routinely inquiring through their interviews with students of the deaths the students have experienced and their reactions to them.

Special Situations of Bereavement

Special circumstances due to the way in which a death occurs, such as the death of a parent by suicide, may produce reactions or feelings in youngsters which are unique to that situation. School psychologists need to be aware of these reactions, so they can more effectively help students. Similarly, psychologists need to be cognizant of other special situations, such as the death of a pet or critical illness of a parent, which, in the past, have been underestimated in terms of their ability to produce significant grief reactions in youngsters.

Death of a Sibling

Cain, Fast, and Erickson (1964) studied the disturbed reactions to the death of a sibling of 58 youngsters, aged 2½ to 14 years. Primarily because of problems related to the death of a sibling, these youngsters were receiving psychiatric treatment. Cain, et al., found that, in approximately half of the cases, guilt was present--even five years or more after the sibling's death. The youngsters felt that the death of the sibling was their fault and that they either should have died too or in place of the sibling. Some had suicidal thoughts, motivated by feelings that they deserved to die or by wishes to rejoin the dead sibling. Their minds were preoccupied mainly with thoughts of all the wrongful feelings or actions they had expressed towards the dead child. Of particular interest was the finding that in at least one-third of the cases in which one or more of the remaining youngsters had been significantly responsible for the death, the parents would not permit the youngster(s) to discuss the incident. Yet, the suppression of the need to acknowledge a part in the death of the sibling only served to increase the burden of guilt.

Another disturbed reaction was an intense fear of death. Fantasies of identification with the dead sibling lead the youngsters to fear that they would die at the same age, for the same reason, or under similar circumstances as the dead sibling. This death phobia tended to be heightened by parental overprotectiveness. Fearful that some tragedy might deprive them of their remaining children, these parents tended to overexaggerate typical parental anxieties. The parents' fearful vigilance limited the youngsters' opportunities to take part in many basic life experiences which would have enhanced their growth as individuals. As a result, the surviving siblings tended to be immature, dependent, and fearful, perceiving themselves as small and vulnerable in a dangerous and precarious world.

Other disturbed reactions, shown by the surviving siblings, included distorted concepts of illness and death; disturbed attitudes towards doctors hospitals, and religion; overidentification with the dead sibling; disturbances in cognitive functioning (e.g., specific disabilities in concepts of time and causality, seemingly due to denial defenses of such factors as the causes of the sibling's death and the relationship of the death to age).

In addition to these disturbed reactions, such symptoms as the following were often present: enuresis, nightmares, severe anxiety, acting out behaviors, and speech disturbances.

Many youngsters have experienced the death of a sibling, and, with the assistance of their parents and significant adults in their lives, have made a satisfactory adjustment. Other bereaved youngsters, however, have not. Giacalone and McGrath (1980) feel that there is a significant need for a preventive-therapeutic approach to assist bereaved siblings and their parents in adjusting to the death of a child. School psychologists need to be knowledgeable of the disturbed reactions that surviving siblings may demonstrate in order to assist these youngsters in obtaining appropriate help.

Death of a Parent by Suicide

> The grandparents were adamant in their opinion that the children should not be told that their mother had taken her own life. The father's plan was to tell them how she died when the children were older (Hammond, 1980, p. 386).

Because of the social stigma associated with suicide, youngsters who have had a parent purposefully take his or her own life face special problems in dealing with this traumatic event. One of the most significant problems is indicated in the above quotation--an unwillingness on the part of adults to discuss the situation with the children. Unfortunately, avoidance of the subject and the secrecy surrounding the death may cause youngsters to develop fears and fantasies more terrifying than the truth. As soon as possible after a suicide, youngsters need to be informed of the actual circumstances of the death.

Youngsters who experience the suicidal death of a parent tend to have more anger and guilt than those whose parents have died of natural causes (Grollman, 1976). They may feel that their behavior or actions contributed to the parent's problems which resulted in the suicide.

They may also fear being abandoned, wondering if the remaining parent will commit suicide too.

Youngsters who physically resemble the dead parent or who, in some way, identify themselves with the deceased may worry that they could have inherited a tendency to kill themselves. They need to be reassured that "suicidal tendencies are not bequeathed like family heirlooms" (Grollman, 1976, p. 66) and that there are other ways to cope with problems than taking one's own life.

Death of a Pet

Once, during a conversation with a teacher, she expressed considerable concern regarding the approaching death of her aging, pet dog. Because of her and her family's fondness for this dog, she was deeply saddened that this pet would not be with them much longer. She then wondered aloud in a half factitious, but half wishful way, if the school would grant her bereavement leave when the dog died.

Although this teacher was aware of the trauma that the death of a pet can evoke, one of the problems unique to losing a pet is that it is not always viewed as socially acceptable to mourn openly over an animal (Pitcairn, 1981). As a result of this attitude, many adults tend to underestimate the depth of the feelings that youngsters may have for their pets.

> When the dog belonging to nine-year-old Janie died suddenly, she showed common reactions of crying and sleeplessness for the first few days. Then the symptoms disappeared. While her parents were sympathetic, they were not very attached to the animal. They treated the loss matter-of-factly and were not surprised when Janie seemed to recover quickly.
>
> A week or so later, however, they noticed that their daughter seemed listless, preoccupied and unable to concentrate at school or home. Something was terribly wrong with their normally cheerful fourth-grader, but they couldn't discover the cause.
>
> When the behavior continued for more than a month, Janie's mother talked over the problem with a psychiatrist. The doctor asked about any unusual events in the little girl's life and finally learned about the animal's death. "But it was just a mongrel," explained her mother.
>
> "I don't think Janie was very attached to the dog. She only had it for a year. She found it on the street." After just a session or two with Janie, the therapist learned the cause for the depression: if Harpo could die suddenly and nobody much cared, then, Janie reasoned, she could die suddenly too, without being mourned. With a great deal of reassurance that in the highly unlikely event of her death, she would be solely missed, Janie's depression eventually

> disappeared. Her parents had simply not realized the extent of their daughter's grief and hidden anxiety (Neiburg & Fischer, 1982, pp. 29-30).

Instead of recognizing grief as a natural reaction to the loss of a pet and allowing the child time to mourn, adults may try to protect the child from such an experience, as well as protect themselves from having to witness the child grieving, by immediately replacing the dead animal. The following story about a parent and a goldfish provides a classic example of such behavior:

> The mother noticed that the fish was dead, so she raced to the pet store to buy a new one with exactly the same markings and hurried back to place it in the fish bowl. The child returned from school, naturally noticed that it was not "his" goldfish, and questioned his mother. The mother retorted, "It is your goldfish." The child proceeded to his room and began to cry. The next day, the child went to school and found a classmate crying hysterically because she had just seen her dog killed by a car. The little boy put his arm around her and said sympathetically, "That's okay, at least you saw your dog die. My goldfish died yesterday, and my mom got a new one because she couldn't take it" (Ciacalone & McGrath, 1980, p. 202).

Children and adolescents need to learn how to cope with grief, and this requires time. Quick replacement of a dead pet with a new animal not only does not allow youngsters time in which to learn how to handle grief which will help to prepare them for future losses, but it may also have another disadvantage for young children. They are apt to think that if pets can be replaced so quickly, then people can too. One author related a case in which a child whose parents were accustomed to quickly replacing lost pets responded to the death of her grandmother with the suggestion of "getting a new granny" (Pitcairn, 1981).

Approximately 58% of all American households have one or more pets (Nieburg & Fischer, 1982). There is a need to recognize that "the death of a pet is a profound experience for children and that in some instances grief for a pet has excelled grieving over the death of a parent or loved one" (Giacalone & McGrath, 1980, p. 202). Adolescents who may be in the process of rebelling against authority figures and feel, at least temporarily, alienated from adults may especially grieve the loss of the unconditional love offered by a pet.

While it is unlikely that, at the present time, a youngster will be referred directly to the school psychologist because of difficulty coping with the loss of a pet, the grief produced by such a death could result in behaviors that could interfere with the student's progress in school. Behavior problems could occur, as well as a decline in academic performance due to difficulty in concentrating on school work (Nieburg & Fischer, 1982). Shortened attention span and restlessness are often the result of the depression and anxiety the youngster feels. Nieburg and Fischer, who have written a comprehensive book on pet loss, recommend that youngsters whose school problems persist formore than several weeks be seen by a mental health professional to assist them in working through their grief.

Critical Illness of a Parent

Weissman (1977) found that "children. . . .if subjected to a catastrophic illness of a parent longer than six months will be traumatized and may manifest some form of inappropriate behavior for their age" (p. 175). School psychologists need to be aware that children and adolescents who come from families in which a parent is critically ill may experience reactions, such as denial, anger, and fear of abandonment, which are similar to those of youngsters who have had a parent die. The following is a personal account of the impact that the serious illness of a parent had during the childhood of a junior high school teacher:

> When my mother became critically ill, I was nine-years-old and in the fourth grade. Her illness and absence, which lasted a year, had a terribly negative impact on me. I believe her illness and the fear of permanent loss contributed significantly to my becoming a problem child in school.
>
> My grandmother, whom I loved dearly, lived close by. I wanted her to stay with me and my sisters, but she was, at that time, unable to do so. My aunts helped as much as possible, but their presence was limited since they had families of their own to care for. With my father working and going to the hospital, we were basically on our own.
>
> At this point in time, my behavior problems at school began. Even with the return of my mother from the hospital, these problems were compounded in the fifth grade when I had a teacher who viewed me as a trouble-maker because of the problems I had had last year. Instead of taking the time to understand the cause of my behavior, she did everything possible to keep me out of the classroom. I must have spent half of the fifth grade in the coatroom and hallway. My problems continued at an accelerated rate until the seventh grade when I had a male teacher who took a special interest in me. He was fair but firm, and I responded.
>
> Although I was never a perfectly behaved student, I would hate to think of what might have happened to me if my mother had not recovered. I also believe a little extra concern on the part of my teachers when my mother was so ill could have prevented a lot of problems for me (Sharp, Note 3).

In those instances where the parent's illness ends in death, the youngster is even more likely to exhibit disturbed behavior as the example presented below illustrates:

> Tom's mother was dying of cancer. She has been intermittently ill since he was nine, but as her illness reached its terminal stage and hope was abandoned he began to behave in an increasingly antisocial way in school. Tom was perpetually in trouble with the staff, and, presumably because the cause was not understood, he was suspended. At this point his mother died. The loss of his mother and the rejection and lack of understanding he felt at school drove him to larceny and assault and, after the usual interval of probation, placement, and various types of highly

> intermittent therapy, he was committed to a school for delinquent boys. The youth was overwhelmed; he was angry, sad, and riddled with guilt, feeling strongly that his mother's death was all his own fault because of his bad behavior. In his new school, he accidently damaged a newly built wall that fell over on him and nearly killed him. Only after this probably unconscious suicide attempt was he given the opportunity of facing with an interested adult whom he felt cared for him, his pain and anxiety over his mother's illness and death (Miller, 1974, p. 398).

To assist students in coping with the critical illness of a parent, school psychologists would benefit from considering the following:

1. Students who have a parent with a life-threatening illness may be referred because of discipline problems at school. For instance, youngsters' feelings of anger and confusion regarding the parent's illness may result in their being less considerate of the parent than they should be. This, in turn, produces guilt which may cause them to act out at school in order to be punished. This again demonstrates the importance of inquiring, not only about deaths in the students' families, but about serious illnesses as well.

2. Grief counseling should be considered, in contrast to other interventions that may be more familiar to school psychologists, such as behavior modification. Dealing with the behavioral manifestations of the problem (i.e., the discipline problems), rather than the cause (i.e., the grief), may result in a "Hercules fighting Hydra" situation, as soon as one problem behavior is brought under control, two more appear. The end result is that students may acquire reputations as behavior problems. Such reputations may interfere with their successful adjustment to school even if the parent should recover.

3. School personnel need to be informed of the significance of the grief students may experience during a parent's critical illness and the possible impact upon their behavior. They also need to be aware that students will not adjust quickly to the serious illness of a parent and that, throughout this traumatic time, the students will need the continued help and understanding of caring adults. If school personnel are merely informed of the critical illness of a parent and not of the possibly adversive effects on the behavior of the student, their sympathetic attitude will rapidly change into a punitive one as the bebavior problems continue (Miller, 1974).

Intervention

In order to help students effectively, school psychologists have to be aware of their limitations as well as their competencies. Therefore, even before consideration is given to what intervention would be most appropriate for a bereaved child or adolescent, school psychologists need to assess their own attitude towards death. If they have not seriously thought about death in relationship to their own lives and have difficulty discussing the subject, they should refer bereaved youngsters to other professionals who would be more emotionally prepared to provide grief counseling.

In such instances, school psychologists can still be effective as consultants to teachers and parents. Their knowledge of how the concept of death develops in youngsters and the normal grief process should enable them to guide the efforts of the teacher or parent who would be primarily responsible for facilitating the bereaved youngster's adjustment to death. They can also recommend appropriate resources, such as relevant books or local organizations, like grief recovery groups, which have been established to assist bereaved families.

Grief Counseling

In addition to being emotionally prepared to deal with the topic of death, what else does successful grief counseling require? Jones (1977) states that, in most cases, grief counseling for students does not require specialized skills beyond those already possessed by well-trained school counselors. Similarly, school psychologists with adequate training in counseling skills should be able to provide grief counseling services. Indeed, interviews with several school psychologists who did grief counseling revealed that they had had no specialized training in this area. They did indicate, however, that in those instances, where a student seemed particularly disturbed over a death and for whom basic grief counseling did not seem to be a sufficient intervention, they would refer the youngster to mental health professionals who had more expertise and experience in the area.

In order for grief counseling to be effective, the school psychologist must be a responsive listener and encourage youngsters to express their grief. To help in eliciting the feelings the bereaved student may be experiencing, Jones (1977) suggests the use of such comments as "I think I know some of what you are feeling and I could cry, too" (p. 318). Miller (1974) states that the adolescent should not be expected to volunteer statements about the deceased. In such instances, the psychologist might ask questions, such as "What was your mother like?" or "What might she have done in this situation?" The creation by the school psychologist of a supportive and empathetic environment in which both the youngster and the psychologist can feel comfortable enough to express emotion is especially important (Janes, Note 4).

Youngsters also need reassurance that the feelings that they are experiencing such as fear, anger, or sadness, are normal and, if not suppressed, should dissipate with time. This may lessen the embarrassment or reluctance of youngsters to discuss their feelings, since they may initially perceive such feelings as being unique or "silly".

Although bereaved students can be reassured verbally regarding the normalcy of their emotions, the school psychologist may wish to consider the possibility of having them view a film depicting bereaved youngsters or familes discussing their reactions to death. A study by York and Weinstein (1981) found that bereaved children and adolescents, ranging in age from 7 to 15 years, who viewed a videotape showing a family's reactions of denial, anger, guilt and depression to a death, participated significantly more often in ensuring discussions regarding their feelings about death than a control group of bereaved youngsters who had not seen the videotape. According to the researchers, the youngsters who viewed the videotape realized that their reactions to death were not unique and, consequently, felt less stigmatized by the death they had experienced.

Funeral Director James Weerts also finds the use of audio-visual material to be an effective resource, both to assist him in explaining death to children and adolescents and to encourage them to express their feelings about death more freely. One sound filmstrip he has found of particular benefit is Rabbi Earl Grollman's Talking about Death with Children. Another is A Taste of Blackberries, a filmstrip adapted from Doris Smith's book about the sudden death of a young boy's best friend (Weerts, Note 5).

There is also an annotated bibliography of recommended films on death and dying both for children and adolescents, in Grollman's book Talking about Death, the 1976 edition. For information relative to more recent films or other audio-visual materials on the topic of death, school psychologists could consult the editorial reviews of audio-visual materials presented in current issues of the journal Death Education.

Books can also serve to stimulate discussion. Dr. Joan Fassler (1978), a child psychologist, feels that one of the most important ways adults can assist bereaved children is by encouraging them to express freely their feelings concerning death. She has found books to be helpful as catalysts in initiating such discussion and considers books to be valuable communicative-aids.

School psychologists, working with elementary school age children, will find Fassler's book Helping Children Cope to be especially useful in aiding them to select appropriate books for bereaved children. In the chapter pertaining to death, she presents a bibliography of books for children within the four-to-eight year age range. She also reviews and carefully appraises a number of books and discusses why she does not recommend the use of certain ones which reinforce misconceptions of death.

Another excellent reference is Joanne Bernstein's Books to Help Children Cope with Separation and Loss. This book consists primarily of an annotated bibliography of books for children and adolescents, ages three to 16, concerning experiences of separation and loss, such as those caused by death, illness, and divorce. Relative to the topic of death, the author provides bibliographic data for 113 books. In addition to presenting short summaries of the books, Bernstein generally points out positive and/or negative characteristics. She also makes recommendations regarding the use of the books. An example of such an annotation follows:

> Little, Jean. Home from Far. Illus. by Jerry Lazare. Boston: Little, Brown, 1965, 157 pp. $5.95. Fiction.
> Interest Level: Ages 9-12 Reading Level: Grade 5
> After Jenny's twin brother Michael dies in a car accident, her parents take in two foster children. Jenny has difficulty accepting one of the children, named Mike, who is about her own age. Thinking she is alone in her guilt-ridden grief, she is unable to express it, except when reading sad books. The foster children, Hilda and Mike, love their own father very much--their own mother has died--but begin to enjoy life with Jenny's family. Eventually, they lose their fear of abandonment. Jenny and her mother begin to share their grief and regret that they have not done so sooner. All in all, the well-written lesson is that all sorts of grief are made easier to bear when shared. Especially useful for children who cannot express grief. Recommended for its sensitivity (Bernstein, 1977, pp. 112-113).

Bernstein's book also contains a chapter describing the principles and practices of bibliotherapy. This chapter offers valuable information to school psychologists regarding the ways to use the books they have selected to benefit bereaved students the most.

At the end of the present chapter is a bibiography of books, for children and adolescents, pertaining to death, as well as readings which school psychologists may wish to suggest to parents and/or teachers to assist them in helping youngsters cope with the loss of a loved one. Before recommending or using any book with children or parents, however, school psychologists should read the book first, so they are certain as to the appropriateness of their selection.

In addition to bibliotherapy, other techniques can be used as adjuncts to grief counseling. Examples include having bereaved students express their emotions through art (Ryerson, 1977) or describe their feelings in writing (Nieburg & Fischer, 1982).

Although bibliotherapy and the other techniques mentioned can have therapeutic value for youngsters, Chaplain Whitmer (Note 6) cautions against using them as substitutes for the personal relationships and human contact that bereaved students often need to encourage them to express and share their grief. The way in which an adult can be most helpful to bereaved youngsters is to provide many opportunities for listening (Ryerson, 1977).

Good-by Techniques

In those instances, in which bereaved youngsters do not appear to be making progress in working through their grief and for whom grief counseling is not a sufficient intervention, school psychologists, depending upon the proficiency of their counseling skills, may wish to consider using good-by techniques or referring the students to agencies or professionals who employ these procedures. Such methods, variously known as grief resolution therapy, re-grief work or good-by techniques, have been used primarily with adolescents and adults and are mainly intended for persons who exhibit unresolved grief reactions. Unresolved grief reactions occur because of obstacles that interfere with the normal grief process. Such obstacles might be the person's inability to cry or express anger at the death or a persistent yearning for the deceased, causing the person to be preoccupied with the past (Melges & DeMaso, 1980).

Kaminski (1979) recounts how the use of a good-by technique, in combination with family therapy and psychodrama, helped a 13-year-old student named Susan accept her father's death. Susan was referred to a mental health center because of behavior problems at school. She did not complete assignments, appeared reluctant to come to school and had problems relating to peers. She tended to become easily angered and verbally abusive. The school psychologist, who referred Susan to the mental health center, felt that Susan's problems were due, in part, to her unresolved grief for her father who committed suicide two years earlier. After the shooting, the father's body was cremated. No funeral service was held, and, as a result, no one in the family had an opportunity to say "good-by" to the deceased. Kaminski's technique was used to facilitate the expression of Susan's and her family's unresolved grief.

This technique consists of three phases. In the first phase, Susan was encouraged to say what she had learned or remembered about her father. In the second phase, Susan indicated to the imagined deceased whether or not she missed him, and in the third phase, she said good-by to the deceased.

In this instance, a ceramic container placed on a table was used to represent the urn containing the father's ashes and to symbolize the father. Remarks were made as though the father were actually present in the room.

> I remember the things that we did together, you know like fishing and the fun trips that we had. . .talking to you. And the bad things I remember is (sic) when you punished me. . .but at least I learned from it. I may be mad at you for killing yourself because it's a sin. But I am also happy for you because you are out of life. And I'm gonna miss you a lot. I'm sure of that (Beginning to cry) Good-by (Kaminski, 1979, p. 18).

After the therapist worked through Susan's initial resistance to the treatment process, Susan became involved, was able to vent emotions of anxiety and guilt associated with her father's suicide and to accept his death.

Another example of a good-by technique is described by Stephen Tobin in the Book Gestalt Is (Perls & Van Dusen, 1975). In the first phase of this technique, the client acknowledges the feeling of not being able to let go emotionally of the deceased. Even though death has ended the physical relationship between the two people, the client still has "unfinished business" with the dead person. This unfinished business consists of unexpressed emotions, such as anger, guilt and love.

Once the client states a desire to complete this unfinished business, the therapist proceeds to the next stage. This consists of a sort of mono-role-playing. An empty chair is placed in front of the client, who is asked to imagine that the deceased is sitting there. Next, while imagining the presence of the dead person, the client is asked to relate what feelings or thoughts are being experienced. Then the client is asked to say the thoughts or express the emotions directly to the fantasized dead person. After this, the client is directed to change chairs, assume the role of the deceased, and respond to the feelings previously expressed. The process continues with the client changing from the first chair to the second chair, depending upon whether he is assuming the role of the deceased or being himself. Usually, during this process, considerable emotion is expressed.

When the client has completed the unfinished business with the imagined deceased, the therapist asks if the client is ready to say good-by. The client is not pressured to do so, but if ready to end the relationship the client is asked to say good-by directly to the fantasized dead person. Saying good-by represents the last phase of the process. Often, the termination is accompanied by a strong emotional response, such as crying, as the person completes the grief work. As a result of having successfully resolved the grief, the person is no longer preoccupied with thoughts of the deceased and is able to invest energy in developing new social relationships.

Melges and DeMaso (1980) offer another variation of a good-by technique. Their method of treatment involves helping the client to relive, revise, and revisit scenes associated with the death of a loved one. Although there are many similarities with the techniques previously mentioned, an interesting aspect is that the therapist may have to assist the client in rearranging scenes in his or her imagination. This revision is done so that barriers which previously interfered with the client's grieving can be eliminated. For instance, if the client was actually present at the funeral home with many people whose presence inhibited the client's expression of emotion, the therapist helps the client to visualize being there alone so that the suppressed emotions can be vented.

Although research regarding the effectiveness of good-by techniques needs to be conducted, these methods appear to have potential for assisting adolescents in working through their unresolved grief. The essence of such techniques seem best expressed by the French author Marcel Proust who wrote, "We are healed of a suffering only by experiencing it to the full" (Proust, 1913/1932, p. 758).

Crisis Situations

School psychologists may have to cope with crisis situations resulting from tragic or unexpected deaths. For instance, if a death occurs while the youngster is at school and the family requests that the student be told immediately, what should the school psychologist do? What guidance should be given school personnel?

Gordon and Klass (1979) suggest that the student be taken to a place in the school where privacy can be ensured to prevent the information from being overheard accidently by other students. The youngster should be informed simply and, without great elaboration, that the family member is dead. Giving a chronology of the event, however, is important as this will allow the youngster's mind to prepare psychologically for the possibility of death. Too brief a description can have a negative effect on the youngster as exemplified by 15-year-old Sarah's reaction to the way in which she was informed of her grandmother's death.

> When my grandmother died I was treated as though I had no feelings at all. Without any words, my parents just came right out and said my grandma was dead and that the funeral was going to be on such a day. I thought my parents came to the point too fast--it hurt me so much. They could have made it come out a little bit easier (Burgess-Kohn, 1978, pp. 73-74).

Rodabough suggests the following as an example of an appropriate, chronological description of a death that might be related to a student at school:

> Your father was involved in a terrible auto accident. The ambulance took him to the county hospical. The doctors did all that they could, but he died. Your aunt is on her way here now to pick you up. We are so sorry that this happened (Rodabough, 1980, p. 21).

Once such information is conveyed, the school psychologist or teacher should remain with the student until the student is escorted home. During this time, the needs the student exhibits should be met as much as possible. Some students may experience physical shock and need to lie down or require a blanket for warmth. Students who remain silent or do not react should be told it is alright to cry or show other feelings (Gordon & Klass, 1979). Listening to the student's expression or feelings, providing reassurance that such feelings are normal and openly sharing the student's sorrow are all ways in which the school psychologist or teacher could respond.

Other crisis situations, which school psychologists should not encounter often but will wish they were prepared for when they occur, are helping youngsters cope with deaths resulting from homicides and suicides. For instance, in a small community in Iowa, five children and their mother were killed by the father, who then committed suicide. Jim McLallen, the psychologist serving the school attended by the children, contacted the superintendent to discuss the best way to respond to the crisis. It was agreed that the psychologist should cancel all other appointments that day and make himself available at the school to monitor the reactions of the students. Another decision was not to have a school assembly to discuss the tragedy, as this might intensify the students' reactions to the traumatic event. Instead, teachers were advised to discuss the situation with their respective class, with the school psychologist serving as a consultant to the teachers, as needed. In several instances, Mr. McLallen and the teachers used "magic circle" discussions to encourage students to express their feelings about the tragic event and about death in general. Mr. McLallen stated that the teachers took time every day for the first week to discuss the situation with their classes, and, after that, whenever they felt there was a significant need. The students knew the situation was serious and did not take advantage of the opportunity for discussion to avoid academic work. Mr. McLallen (Note 7) strongly recommends that in such traumatic situations, school personnel be advised that, before continuing with academic instruction, they need to take the initiative in acknowledging to the students the existence of the tragedy and in allowing the students opportunities to discuss the incident and to express their feelings.

The teachers were also aware that the school psychologist was available to counsel with individual students whom the teachers felt were exhibiting extreme reactions to the murder-suicide. In this particular situation, however, since the family had been in the community for only a year, not many close associations with other youngsters had been formed. As a result, most of the students experienced shock, but there was not generally what Mr. McLallen (Note 8) described as "heavy grief". Reactions of several of the children included nightmares, bedwetting, and not wanting to sleep with the door closed. Mr. McLallen worked with the parents to reassure them that these were natural responses to the tragedy. He encouraged parents not to overreact to the tragedy, since the children's reactions would be influenced by how the parents and other adults in the community responded.

At the junior high level, Mr. McLallen did individual counseling with several students who were more closely acquainted with the family and who seemed quite upset by the incident. Counseling consisted primarily of allowing the students to vent their feelings.

Mr. McLallen (Note 9) monitored the situation for the rest of the school year (i.e., approximately one semester), during which time it appeared that the students were making a satisfactory adjustment to the tragedy.

Mr. McLallen has also had experience in assisting adolescents cope with the suicide of a classmate. When this occurs, he adjusts his schedule so that he can be available at the high school for several, consecutive days. In this way, students can be assured that they will have an opportunity to talk with him, if they wish, about the suicide. He also works closely with the principal who is able to provide guidance regarding those adolescents who are friends of the deceased student and who might need assistance. Mr. McLallen contacts the students individually and offers them an opportunity to discuss the situation. He states that most students seem relieved to have someone to talk to although, on occasion, students will choose not to and he does not press them.

Again, counseling consists mainly of assisting the bereaved youngsters through the stages of the grief process by being an active listener, by acknowledging the pain and grief they are experiencing, and by reassuring them of the normalcy of their feelings. In addition to counseling, Mr. McLallen has found that several bereaved students have benefited from reading the book How to Survive the Loss of a Life by Harry Bloomfield.

Mr. McLallen indicated that school psychologists should be aware that a suicide could create a ripple effect, that is, other students who are having problems might also consider suicide as the way to handle their own situation. To prevent this from occurring, especially within a large high school, Mr. McLallen (Note 10) recommends that the school psychologist team with other psychologists or counselors. They should station themselves in those areas of the school where they are highly visible to the students so that the students will be aware that persons are available with whom they can talk to about the incident.

Although situations requiring school psychologists to assist youngsters in coping with the devastating effects of a homicide of a teacher will be rare, school psychologists who are involved in such a situation would benefit from reading psychiatrist Bruce Danto's chapter, "A Man Came and Killed Our Teacher" in the book Acute Grief. Dr. Danto (1981) presents a very informative account of his experiences in helping parents, children, school psychologists, and other school personnel in dealing with the traumatic effects resulting from the murder of a teacher, an event witnessed by a class of elementary school children. He describes, in detail, his meetings with police, parents, and school staff. He discussed the psychological problems that some of the children developed as a result of the trauma, the differing reactions of the families to the situation, and the reasons for the approaches he recommended be used to assist the children and their families in allaying their anxiety and grief. He also relates the fears that the parents had regarding their children's having to testify in court, as well as the procedures he suggests for helping the children through the trial.

Similar to the recommendation by Mr. McLallen, Dr. Danto strongly encourages that children be given opportunities, both at home and at school, to discuss the traumatic situation and their feelings regarding death, its meaning, and its effects on others. Dr. Danto also confirms Mr. McLallen's observation that the parents' reactions to a tragic event have a profound impact on the reactions of their child.

> It was undue anxiety expressed by the parents that created undue anxiety in the children; of great significance is the

> observation that the children who did not cope well had parents who did not cope well. . . .
>
> We must remember that children are always imitating their adult models, especially during a crisis (Danto, 1981, p. 110).

This indicates the importance of working with the parents to allay their anxieties in order to reduce the likelihood of their conveying unnecessary fears to their children. School psychologists should recognize too, that by the manner in which they react to and cope with tragic events, they serve, not only as role models for the children, but for the adults as well.

Traumatic situations, if dealt with appropriately, can result in positive learning experiences for students. An example of such a situation involved the murder of Roger, a 12-year-old, educable mentally disabled student in one of the schools I served as psychologist. Roger was described by his mother as a child for whom strangers did not exist. He was friendly and open with everybody. Tragically, Roger's friendliness cost him his life. His younger brother last saw him alive, walking away with a man who had promised him a bicycle. About a week later, Roger's body was recovered from a nearby river. The police ruled his death a homicide.

The elementary special education teacher who taught Roger's class recognized the importance of discussing his death with her students. Before beginning the discussion, she reviewed the objective facts, known at the time, regarding Roger's death. She did this to dispel any misconceptions the students might have had based on rumors they might have heard. Also, by pointing out how talking with strangers had led to Roger's death, the teacher was able to allay the students' concerns about whether they might die soon too. The teacher then responded to the questions the children had about death. The concept of death of most of the youngsters appeared to be at the concrete operational stage of cognitive development. Many expressed curiosity about the physical aspects of death (e.g., Where was Roger's body now?; What did his body look like?; and Where was he going to be buried?) Although the children were concerned about Roger's death, since they had not established close friendships with him, his death evoked more curiosity than emotional response.

Because of the nature of the questions the children had asked about Roger's death and to help educate them to accept death as a part of life, the teacher felt that the students would benefit from attending the funeral service (Young, Note 11). Funeral Director James Weerts (Note 12) recommends that all children especially those above the age of five, be given the opportunity to attend the visitation or funeral of a friend or relative. As Grollman (1976) points out, children, like adults, have a need to say good-by to the deceased and should not be excluded from the grief and mourning following a death. They should be encouraged but not pressured to attend, and their decision should be respected.

The parents of the students were in agreement with the teacher's suggestion and signed forms granting permission for their children to attend. Prior to going to the funeral, the teacher prepared the students by discussing what the service would be like, the ceremony at the graveside, and the possible emotional reactions of the members of the family. The class also decided to send a plant to the family as a memorial gift.

On the day of the funeral, the principal, the special education teacher, and I escorted the students to the funeral home. Knowing what to expect seemed to allay most of the children's anxieties about the service. Their main concern was that they were not able to see Roger in the casket. The casket was closed because of the condition of the body after having been found in the river. Even though a picture of Roger was placed near the casket, the children had difficulty understanding or visualizing that Roger's body was really inside. Not having the actual experience of viewing Roger's body in the casket, their recurring questions indicated that they needed periodic reassurance that Roger's body was there.

According to Funeral Director Weerts, in situations where it is at all possible, an open casket is preferred. Viewing the body of the deceased is important for the bereaved, because the body provides tangible evidence of death. It facilitates the grief process, because the survivors are less likely to persist in their denial of the death (Weerts, Note 13).

Throughout the service, both at the funeral home and at the graveside, the special education students conducted themselves appropriately. They were able to witness and share in the sorrow of the family members. Roger's mother later visited the class to thank the teacher and children for attending the service and to return the memorial plant, so that it would remain in the classroom as a rememberance of her son.

Attending the funeral service was a positive learning experience for the special education students. The parents reported no adversive effects on the children's behavior at home. The funeral service offered the students an opportunity to learn through observation of the grief and mourning process that occurs when a person dies. Such opportunities are especially important for mentally disabled youngsters who need concrete or actual experiences to assist them in developing an appropriate understanding of such complex concepts as death.

Death Education

During the last decade there has been a considerable increase in the publication of materials on death. While this may be beneficial with respect to making the general public better informed about the topic, Chaplain Whitmer (Note 14) feels that, unfortunately, death education in the public schools is still a much neglected subject. His opinion was confirmed by a survey of 100 elementary teachers in northeastern Iowa (Henny & Barnhart, 1980). This survey showed that the topic of death and dying was formally taught by less than 1% of the teachers. Also, although 41% of those surveyed felt that the classroom teacher should be responsible for teaching about death, 92% had received no undergraduate preparation and only 21% reported inservice training, thus revealing a definite lack of professional preparation for death education. With respect to the school psychologist or counselor being responsible for teaching about death, only 15% of the teachers felt this would be an appropriate role.

Although it would not be feasible, in terms of the already numerous demands on the time of school psychologists, or appropriate, in view of the lack of professional training in death education of many psychologists, to formally teach children about death, they can facilitate death education in several ways. They can serve as consultants to teachers and parents, assisting them in their efforts to help bereaved youngsters or to teach children and adolescents about death. Also, while not formally teaching the subject of death, school psychologists could provide a valuable service in educating youngsters about death through magic circle discussions, pertaining to the death of a classmate for instance, or through discussions of death-related literature. Relative to this latter situation, Norma Simon's book, We Remember Philip, written for children ages seven to 11, might be of particular interest to psychologists. This book relates a teacher's reactions to the accidential death of his son and his students' attempts to understand their teacher's feelings and help him deal with his grief. Simon's book, can be used by school psychologists to encourage an understanding, on the part of students, of the reactions of teachers who have experienced a recent death in their family. Children need to learn not only how to cope with a death in their own family but also how to help others cope with a death in theirs.

Another way in which school psychologists can facilitate death education is by offering inservice programs or workshops to teachers about death and dying, as well as by creating an awareness of the significance of death education through presentations to interested organizations in the local community. In order to provide such services, school psychologists themselves will need adequate professional training in death education.

Still another valuable role for school psychologists is that of a resource person. They can recommend the use of relevant literature and audio-visual materials or refer persons to specific professionals or agencies within the community who provide grief counseling services.

School psychologists can also serve as advocates of death education. This advocacy can be shown by their support and sponsorship of workshops on death education through local and national educational associations, in addition to encouraging professional organizations for psychologists to provide educational opportunities for improving psychologists' skills in such areas as use of good-by techniques or grief resolution therapy.

School psychologists can also contribute to the knowledge of death through research studies. There is a definite need for death-related research in the field of special education (e.g., Are the concepts of death of learning disabled students similar to those of non-handicapped youngsters? or What intervention would be most effective in assisting mentally disabled youngsters in coping with death?)

In order to serve most effectively as consultants, researchers, resource persons, and advocates for death education, school psychologists need to be both emotionally and intellectually prepared to deal with the topic of death. Emotional preparation means that psychologists have considered the significance of death in relationship to their own lives and feel at ease in discussing the topic. Intellectual preparation consists of acquiring knowledge about death and related subjects through reviewing past and present literature, taking courses in thanatology and participating in workshops and seminars on death and dying, learning about death-related materials that can be used effectively with youngsters, being knowledgeable about professionals (e.g., specific mental health personnel, clergyman and funeral directors) who provide grief counseling services and groups within the local community which assist bereaved families (e.g., Compassionate Friends, Grief Recovery Group, and Rediscovery Unlimited), and being aware of the services provided by national organizations, such as The Forum for Death Education and Counseling which is interested in improving the quality of death education and counseling and sponsors workshops to meet this goal.

Monitoring Methods

In order to determine if grief counseling, or other intervention that is being used, is successful and the bereaved youngster is making a satisfactory adjustment to the death, the school psychologist needs to consider the progress being made in working through the grief. One way this can be accomplished is by monitoring the youngster's progress through the stages of the grief process. For instance, if a 13-year-old child of normal intelligence has not progressed beyond the stage of denial of the reality of death several months after the funeral, the youngster is not making a satisfactory adjustment. The youngster has become fixated at that particular stage of the grief process and will need a different mode of therapy or intervention than the one presently being used.

Usually, if the bereaved student is making a satisfactory adjustment, there is an observed decrease in the intensity of the symptoms over time. Systematic behavioral observations or anecdotal record keeping of the initial symptoms or behaviors of concern and their intensity (assessed in terms of frequency of occurrence and/or duration) and subsequent, periodic re-checks would provide the school psychologist with data for evaluating the student's progress over time. Periodic use of behavior rating scales which allow for assessment, both of the presence and intensity of the symptoms, would provide an additional source of data for monitoring the youngster's progress.

If the intervention is successful, not only will there be a decrease in the intensity of the symptoms, but the bereaved youngster will be able to speak of the deceased with increased ease, that is, will not attempt to avoid the subject or continue to show a strong emotional response. The youngster will also be less preoccupied with the death and the past and will show a renewed interest and energy in activities and relationships of the present. Information relative to these behaviors can be obtained on the basis of direct contact with the student or indirectly through interviews with parents, teachers, or other significant adults in the life of the youngster. These latter sources of data are especially important in those instances where other persons are directly responsible for helping the bereaved student through the grief process and the school psychologist is monitoring the outcome of their efforts and acting primarily as a consultant.

Conclusion

A major purpose of this chapter was to create an awareness among school psychologists both of the significant effects that the death of a loved one can have on the behavior of children and adolescents and the intervention techniques that can be used to assist them in coping with a death. Hopefully, as a result of this awareness, psychologists will be encouraged to do the following:

1. Incorporate in their initial interviews with students or parents questions ascertaining whether any deaths or serious illnesses have occurred in the family. Inquiries should be made, not only about recent deaths and illnesses, but also about illnesses and deaths of persons significant to the student which have taken place in the past. This is important, because psychologists may be working with students who have acquired negative reputations because of problems caused by a past death or serious illness in their family. In such an instance, psychologists might use this information to determine if there is any unresolved grief associated with the situation which the student will need to work through. This information can also be used to help school personnel understand the reasons for the student's behavior and to change their negative perception of the student.

2. Increase their professional knowledge of death, dying, bereavement, and grief by participating in workshops, seminars, and college courses. This will enable psychologists to be more adequately prepared to help bereaved youngsters. Since expecting all psychologists to become thanatologists would be unrealistic, consideration might be given to having several psychologists within each agency receive additional training in this area so they could serve as advisors to other professionals. Another possibility would be to designate experienced professionals outside the agency who would be willing to assist psychologists in their work with bereaved youngsters.

3. Conduct or support death-related research in the area of special education. Studies need to be done to determine more fully to what extent handicapped students' concepts of death differ from those of the nonhandicapped and what techniques may be most effective with specific populations of handicapped youngsters, such as the mentally disabled. Handicapped students have unique attributes and abilities which may require the modification of existing interventions or the development of new ones. Good-by techniques for example, require students to use their imaginations which, in turn, implies that the students possess a certain level of cognition. Such techniques would not be appropriate for lower functioning, mentally disabled youngsters.

4. Assist youngsters in adjusting satisfactorily to the death of a loved one. Depending upon such factors as emotional preparation to deal with the topic of death and counseling expertise, psychologists can accomplish this goal, in such ways as (a) referring students to professionals who are experienced in bereavement counseling, (b) serving as consultants to teachers and parents who, because of their close relationships with the bereaved, may be more effective than psychologists in directly helping youngsters cope with death, and (c) working with bereaved students to provide grief counseling or therapy.

Accomplishment of the suggestions described above will help to ensure that psychologists fulfill their professional obligation to bereaved children and adolescents. It will also lessen the possibility that the "forgotten" youngsters of today will be remembered tomorrow for the pathological consequences produced by their unresolved grief.

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Adolescent Peer Group Relations: Problems and Intervention

Philip A. Mann

Abstract: The phenomena, psychosocial significance, and pertinent research literature concerning the adolescent peer group are reviewed. The importance of the peer group as a source of social comparison in adolescent development is discussed. The functions of the peer group in such potential problem areas as conformity, social isolation, sex role development, deviant sub-cultures and integration of newcomers are reviewed. Opportunities for intervention are viewed from four levels of the ecological system: school environment; classrooms; groups, cliques and crowds; and individuals. The role of the psychologist as a consultant to teachers and administrators, and the importance of understanding the adolescent peer culture, implanting alternative interventions is emphasized.

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Philip A. Mann

Introduction

Have you got your Izod shirt, your Top-Siders, your designer jeans? Do you have your hooded sweatshirt under a jogging suit, or a football shirt with a number on the front and your name on the back? Can you play Pac Man, Centipede, and Donkey Kong? These superficial symbols of status in the adolescent peer culture are manifestations of less visible social and psychological processes that have profound influences on personal development in our culture.

Among modern theorists, Cooley (1922) emphasized the importance of others' impressions on personality development, with his concept of the looking-glass self. Sullivan (1958) attributed to close chum relationships during the juvenile and preadolescent eras the development of self-acceptance, self-esteem, and the capacity for real love. In Erikson's (1950) scheme of developmental stages, adolescence is marked by the struggle to develop a sense of personal identity against the threat of role diffusion, a conflict in which the reflected opinions that others have of oneself play a significant part.

Age grouping and peer status assume special significance in any society where the passage to acceptable adult status is not guided wholly by ties to family and kin (Eisenstadt, 1955). In western culture, adolescence has a special significance as a social process that marks the interim between reproductive maturity and social and economic maturity. As such, it is an indefinite period, both culturally and personally; with a loosely prescribed time span, ambiguous behavioral standards, and unclear social status.

Into this arena comes the individual undergoing profound changes in size, bodily structure, and feelings, who finds that this biological strangeness is met with corresponding social confusion; no longer able to enjoy the protections of childhood, the adolescent is also not yet entitled to the perceived freedoms and responsibilities of adulthood. The pressures for independence push against the threat of loss of security in a situation of personal and social ambiguity.

There are a few more or less tangible sources of information about personal competence during this period that come from independent activities: how well one can solve algebraic equations, repair an auto engine, shoot baskets, or play a musical instrument, for examples. However, even these skills become increasingly "socialized" in competitive situations. The multiple ambiguities that remain create tensions and uncertainties for which the peer group becomes an important source of normative information. Festinger (1954) proposed that whenever one's standing on a particular personal attribute is ambiguous, pressures arise to compare oneself to others to resolve the ambiguity. His theory of social comparison processes can be applied to abilities, opinions, personality characteristics and emotions to name a few. For most, although not all, comparisons, persons will seek to compare themselves to others who are similar to themselves in some salient attribute, or who share the same situation.

Thus, the peer group becomes a significant source of information, influence, and security for most adolescents. The amount of time spent with family decreases and the amount of time spent with peers increases throughout childhood and adolescence (Wright, 1956). Peers acquire the ability to reward and punish through acceptance, which enhances self-esteem, or rejection, which lowers self-esteem (Campbell, 1964). These features form the basis for the establishment of a relatively autonomous social system among adolescents, based on mutual need satisfaction (Parsons, 1950), with the expectable evolution of social norms, cultural mechanisms of exchange, allocations of status and prestige, and recruitment and socialization of new members that would characterize any social system (Sanders, 1959).

Given the significance of this phenomenon in our culture, the richness of the scientific literature on the subject, and the fact that probably all of us can remember incidents of joy and pain from this period that have had significant influences on us, it is indeed surprising that school psychologists, to my knowledge, make so little use of this information. Perhaps it is because in part, that school psychologists and special education continue to subscribe, wittingly or unwittingly, to the medical model in which the identified client is assumed to be both the focus of attention and the source of the difficulty, and the social context is regarded as excess noise that is the same for everybody. Or perhaps it is because, like the rest of society, including some adolescents, the whole scene is so complex and confusing that we sometimes wish it would just go away. In confronting problems of peer relationships, we can ill afford to do either of these things.

In this paper, I will address a number of issues concerning peer group relationships, largely during the middle school or junior high school and high school years. Where it is appropriate, there may be occasional extensions beyond these boundaries. This work includes a review of the pertinent literature on peer group-related phenomena. The nature of the task does not permit either an exhaustive review of the literature, or a systematic critique of the methodology of the studies cited. In many cases, these considerations are important in interpreting the data; where this is so, these factors will be taken into account. Every attempt will be made to cite findings that are supported by a number of investigations or that represent points that are logically consistent with other data. However, since the purpose of the paper is more formative and illustrative of intervention possibilities than of research questions, the reader should keep this distinction in mind.

Philip A. Mann

Antecedent Influences on Peer Relationships

Adolescent peer relationships are influenced by a number of experiences, conditions, and personal attributes that precede the adolescent period. The role of these variables is reviewed in the following section. It is perhaps worth noting here that peer relationships exist prior to the pre-adolescent and adolescent eras, and that these social experiences also influence what happens during the adolescent period. However, separate consideration of those experiences is beyond the scope of this paper. The distinctiveness of the adolescent peer group lies in its increased salience and intensity for personal development. In this paper, as in the literature generally, prior peer relations are considered to be organismic variables. However, for those readers who believe passionately in the fixity of personality as a result of heredity or early childhood experiences, it should be made explicit that the modifiability of personality through later experience is one of the assumptions of this paper.

Family Background

As a primary source of social learning, it is to be expected that families will have a significant influence on adolescents' later social experiences. While age and sex are probably the two major determinants of peer group membership, adolescents also tend to choose as their friends children from families in the same socioeconomic class as their own (Elkins, 1958; Hollingshead, 1949). While this choice could conceivably reflect differential physical accessibility, such choices tend to occur even when a range of social class is available.

Access to peers can be affected by place of residence, of course. Barker and Gump (1964) found that youth in rural areas, compared with those in urban areas, had less varied contact with peers, but that these relationships could be just as intimate and involving as those with more frequency. Schmuck and Lohman (note 1) hypothesize that socially isolated peers may be influenced more by fantasies and the mass media than by social comparison. The author's experience in working with rural school systems has been that extra-curricular activities are often limited for rural youth; and that access to peers can be a significant problem, especially for those whose families have recently made an urban to rural move. Gans' (1963) data support this impression.

Within the home, family dynamics also have an influence on the peer relations of youth. Peck (1958) found that children's traits of friendliness and spontaneity were associated with a lenient, democratic, family climate. On the other hand, primitive, hostile, and restrictive parents have been found to have children who are aggressive toward their peers (Bandura and Walters, 1960). McCord, McCord, and Verden (1962) concluded that those children who are alienated from adults and are dependent on peer group ties have parents who have encouraged them to do just that: leave home and ignore adults. In Becker's (1964) summary of the effects of parental discipline, parent hostility is found to be consistently associated with peer problems, whereas the effects of parental warmth on peer relations depends upon its combination with the dimension of parental restrictiveness-permissiveness. The effects of parental warmth and permissiveness are consistent with the results found by Peck, while warmth and restrictiveness tend to produce more shyness, inhibition, and dependency with peers.

These within-family variables may be influenced by somewhat broader cultural and value orientations. It may be, for example, that youth from similar family backgrounds share similar world views, and thus provide more appropriate objects for social comparison, than those from other backgrounds. Even within social classes, family differences in religious, ethnic, and cultural backgrounds may influence peer selection. In what was originally a study of social class differences in parental practices, Miller and Swanson (1958) found that those families that they classified as "bureaucratic", where the primary breadwinner worked for someone else, differed from those families classified as "entrepreneurial", where the breadwinner was self-employed. The former placed more emphasis on getting along with others, popularity, and social conformity than did the latter. This difference is similar to the inner and other-directed personalities described by Riesman (1950).

Lynn and Sawrey's (1959) well-known study of father-absent families found that boys from these families were reported to have fewer friends and more difficulties with peers than those from intact families. One interpretation of these findings is that the boys did not have role models available for learning appropriate sex-typed behaviors. However, not all studies of father-absence find those effects. These were children of Norwegian fishermen, and one has to wonder how culture-bound these effects are. With the increased divorce rate in this country, children from single-parent families may now be able to find others in similar circumstances more easily than was true at an earlier time. The reader interested in pursuing this topic further may wish to examine reviews of the earlier literature by Kagan (1964), Yarrow (1964), and Clausen (1965).

Rate of Maturation

While the rate of sexual maturation during preadolescence and adolescence produces visible physical changes and less visible psychological effects, these changes do have an impact on peer group relations, as well. Eichorn (1963) summarized the findings from longitudinal studies, including the Berkeley Growth studies. Early maturing (EM) boys were found to have consistent social advantages. They were more relaxed, more attractive, more sociable, and more popular with peers during high school than late maturing (LM) boys. The LM boys were more active and expressive during junior high years, and equal to the EM in popularity until the end of junior high, at which time their popularity declined. The data suggested that the LM's behavior was designed to compensate for physical inferiority by seeking attention and that their "little boy" behavior became increasingly less acceptable to peers as they got older.

While the physical differences between the groups diminished after age 14 or 15, the personal and social differences did not. Eichorn observed:

> "Once the distinctions had been established it appears that a shift by the LM toward greater maturity of physical appearance and behavioral traits did not necessarily produce a concomitant change in their reputation and status within the peer culture." (p. 38)

The LM boys produced TAT protocols that were suggestive of feelings of inferiority, and were rated by adult observers as having stronger drives for affiliation and aggression, based on inferences from their behavior. The researchers suggested that the EM boys may have internalized more adult standards for behavior as a result of more frequent rewards whereas the LM remained more rejected, defiant, and less accepting of adult standards.

For girls, the results were somewhat different. Early maturing girls tended to be less popular with peers than LM girls at an early age, but more popular at a later age. This difference seems to have depended on what the modal pattern of physical appearance was at a given age; when most girls were pre-pubertal, they were less attracted to the EM girls than to the LM girls, but when most of the girls were pubertal or post-pubertal, the EM exceeded the LM in popularity. Again, these results are consistent with social comparison theory as a basis for peer relationships.

Personal Traits

Schachter's (1959) study of affiliation found that firstborns were more anxious and more affiliative than later-borns in an experimental situation. He interpreted his results along the lines of social comparison theory. The effects of both birth order and anxiety are complex, and a more comprehensive review than can be given here is presented by Clausen (1966). However, anxiety does not necessarily lead to increased affiliation. Whether or not it does has been shown to be a function of both the kind of arousal and the nature of the social situation (Mann, 1971).

In the studies reviewed in the preceding section, LM boys' greater anxiety apparently led to more activity directed at gaining peer acceptance, but their efforts were apparently not successful. Generally, traits such as friendliness, sociability, intelligence, and creativity lead to greater peer acceptance, while indifference, withdrawal, rebelliousness, and hostility lead to peer rejection (Campbell, 1966). There is a substantial body of literature that supports a relationship between peer group status and mental health, as measured by a variety of criteria (Glidewell, et al., 1966).

Accordingly, the literature reviewed thus far suggests a familiar picture of the rich getting richer, and if one were able to condense data from different studies across these antecedent variables; i.e., family background, maturation rate, and personal qualities, a high degree of redundancy would no doubt emerge. However, one should keep in mind that these data deal with general trends, and are not invariably true. For example, while high ability is generally associated with peer acceptance, some extremely gifted children may have trouble finding, and serving as, appropriate objects of social comparison (Hollingsworth, 1942). Moreover, the traits examined here so far tend to be those that are generally valued in our culture. It is not difficult to imagine situations and circumstances where these traits are not as highly valued, or are irrelevant. Therefore, an examination of environmental and situational effects on peer group relations is necessary for an understanding of the topic at hand.

The Ecology of Peer Culture

School Environments

Barker and Gump's (1964) pioneering study of the effects of school size demonstrated that large and small schools constitute pervasively different psychosocial environments for their students. Their general theory is the ecology of behavior settings, which has been extended and refined since this original study (Barker, 1968; Barker and Schoggen, 1973; Barker and Associates, 1978). The central hypothesis of the study of school size was based on the theory of manning or "staffing", of settings. Briefly, a behavior setting consists of a physical milieu, a program of prescribed activities, and a set of inhabitants. Any behavior setting requires a minimum of these three qualities to exist; as the number of inhabitants decreases more pressure is placed on the remaining inhabitants to participate in the program of the setting; as the number of inhabitants increases, these pressures diminish on each individual, and more of the inhabitants become surplus to carrying out the essential functions of that setting. Their study confirmed this hypothesis, with a wide range of effects for the personal and social functioning of the students.

Compared to students in the larger schools, students in small schools felt more pressures to participate in more frequent and more varied activities; they did participate more often and more intensively in these activities; and they felt a greater sense of functional importance in the setting of the school. Of particular interest is the finding that students in the smaller schools evaluated each other in terms of functional qualities, "what can this person do?"; while students in the larger schools evaluated each other in terms of psychological and personality traits, "what kind of person is he/she"? (Barker, 1968).

An important finding concerning the operation of pressures for involvement has implications for the kinds of problems that school psychologists often encounter. Recruitment of participants into functional roles occurs through a promotion process in which inhabitants who would otherwise comprise the "audience" are drafted into participation. Willems (1967) found that marginal students, defined as those with below average intelligence and below average parental educational attainment, more often felt responsible to participate in activities in small schools than did marginal students in large schools. Willems was able to replicate these results. In fact, confirmation of the theory of undermanning has been replicated in a wide variety of settings and organizations across varied populations (Barker, 1968).

A somewhat different approach to the high school environment has been taken by Kelly and his associates (Kelly, 1979; Trickett, Kelly, and Todd, 1972). Kelly (1968) has developed principles from field biology and applied them to the study of personal coping and adaptation processes in varied environments. One guiding principle behind these studies is what has come to be known as the concept of "person-environment fit".

In earlier research, Kelly (1969) found that high school environments could be reliably distinguished on the basis of population exchange rates. Those with high turnover rates were termed fluid environments, and those with low turnover rates were termed constant environments. Observational studies indicated that fluid environments provided more varied opportunities for social interaction and success, were characterized by more diverse student dress and behavior, and were more open and receptive to newcomers, while the constant environment schools were characterized by student interaction in stable cliques, fewer, more narrowly defined, values for student success, more conformity of student dress and behavior, and were more guarded and evaluative of newcomers. Kelly (1968) hypothesized that student problems in the fluid environments would be focused on the establishment of personal identity and finding an appropriate niche in the school social structure, while in the constant environments problems would revolve around conformity to rules and finding rewarding outlets for developing personal competence.

In a longitudinal study of boys in high schools differing in population exchange rate, Kelly (1979) and his associates examined the effects of these environments on student coping and adaptation. The findings are complex and diverse, and only a few highlights pertinent to this discussion can be presented here. The two schools were found to produce different social environments in a number of respects: the high exchange rate school generated more social interaction between students and adults, in more settings, and of a warmer quality, than the low exchange rate school. The normative structure and consequences for nonviolation were clearer at the high exchange rate school that at the low exchange rate school, and students at the former school perceived a social norm for sociability more than students at the latter school. Teaching staff reported more satisfactions with their profession and with the school at the high exchange rate than at the low exchange rate school (Newman, 1979). The implications of these results are that the high exchange rate school provides more opportunities for adult socialization during adolescence, while at the low exchange rate school students are more dependent on their peer group.

Todd (1979) pursued the peer group experience at the low exchange rate school further by studying help-giving behavior among two sub-cultures in the school that he called the "citizens" and the "tribe". The citizens reported being more involved in formal activities of the school and had higher academic aspirations than the tribe, who valued interacting with each other and were more involved in out-of-school activities. He found that both groups were heavily involved with their peers, but that help-giving among the citizens was more often involved with school, while the tribe operated fairly independently of school settings and activities in their mutual help-giving behavior. Thus, within the more alienating of the two school environments, the group's orientation toward the school still influenced peer interactions.

Accordingly, where a peer group operates determines how it operates.

The work of Barker and Kelly and their associates has shown how attributes of the physical environment, or milieu, together with population, can influence the social environment. The latter, in turn, influences the psychological experience of the inhabitants. Other studies have shown how the social environment affects peer interactions.

Social Climate and Social Structure

The famous Robbers Cave experiment (Sherif, et al., 1981) showed that a stable social structure can develop in just one week among boys who are initially strangers to each other, and this phenomenon has been observed in a number of studies. This structure develops on the basis of the impressions that youth form of each other, and reputations are apparently more stable and influential than is behavior in the formation of these groups. Once reputations are established, the expectations of the group tend to draw out the behavior appropriate to them (Campbell, 1964).

Schmuck (1963) was able to identify two types of friendship structures in adolescent classrooms. In one, which he called a diffuse structure, friendship choices were widely distributed, so that no one student had many friendship choices or rejections, and there were few social isolates. In the other, friendship choices were concentrated in a few students, producing a central social structure. He found that students in the diffuse structure showed more positive affect, more group cohesiveness, and were more positive towards school, than were students in the central structure. In the central structure, students who were low in status were more conscious of their low status and tended to underachieve relative to their abilities, compared to students in the diffuse structure.

A remarkable degree of stability in classroom social structure has been found in several studies, and early efforts to alter these structures deliberately have not been encouraging (Glidewell, et al., 1966). Students have been shown to be acutely aware of classroom social structures, and as noted before, the more so in centralized structures. A well-known social psychological finding, of course, is that group cohesion tends to increase when the members are working toward some common goal, or when their awareness of an out-group is increased (Sherif, et al., 1961).

In addition to classroom size, where smaller classes are more likely to have diffuse structures, (recall Barker and Gump's research), the social climate also affects social structure. Lewin, Lippitt, and White's (1939) experimentally created groups produced a diffuse social structure in democratic groups, with increased cohesion and cooperation and reduced aggression, compared to the autocratic and laissez-faire groups. This finding has been replicated on numerous occasions (Glidewell, et al., 1966).

A similar kind of social structure has been found in studies of open classrooms. Compared to traditional classrooms, open classrooms produce more interaction, more evenly distributed friendship choices, and fewer social isolates (Feeney, 1976; Hallinan, 1976, 1979). However, Gump (1980) cautions that one must distinguish between openness of classroom architecture and classroom program. The latter seems to be of determining significance and may also exist in schools with traditional architecture. That this interactive orientation generalizes to other settings is supported by work by Downing and Bothwell (1979).

Having thus set the scene of the peer culture, the discussion turns now to a more specific and detailed examination of some problems that occur in and around these relationships. Of course, one of the central issues, acceptance or rejection, has already been the subject of much of this review. But, so pervasive is the peer culture for adolescents that there are numerous other problems of significance also.

Types of Peer Problems

Traditionally, social psychology has been concerned with the response of the individual to one or a group of others. The prototype of this approach is the Asch experiment, in which the individual is asked to judge a stimulus in the presence of others. The others, confederates of the experimenter, give judgements that are incorrect, and the subject is confronted with the choice of reporting his or her own perception or yielding to the pressure of the group. This paradigm has a number of variations, produces some interesting results and is typical of many of the studies conducted on peer group problems. This approach presents two difficulties for our purposes here. For one, it tends to emphasize characteristics of the individual, which leads to thinking only about individual interventions, along the lines of the medical model. For another, it creates a limited, unidimensional picture of what are essentially multidimensional, mutual, interactions in a group process. These remarks are presented as a caution here, pending further development of intervention strategies in a later section. Having done so, the review of peer group problems can proceed.

Conformity

A central dilemma in social life is to strike an appropriate balance between the concerns of the group and the concerns of the individual. Especially in our culture, which nominally champions individualism, there is a value on preserving individual freedom and initiative, prizing independent judgement, and a fear of the consequences of "going along with the crowd", even though the latter phenomenon is not difficult to observe almost any day in our society. At the individual level, the dilemma is based on the assumption that people need to be able to make independent judgements and take responsibility for their actions in a society based on a legal system of individual culpability and an economic system of private ownership and enterprise. At the same time, excessive autonomy can, and does, lead to isolation and alienation. At the social level, the concern is with anarchy and loss of social controls, repression and the authoritarianism that flourishes under conditions of blind obedience. Our society cannot approach its ideals either as a flock of sheep or as a pack of wolves.

Many of the variables considered earlier play a role in conformity. Tuma and Livson (1960) found a negative relationship between SES and conformity. They also found that while girls increased in conformity with age, the reverse was true for boys. Patel and Gordon (1960) found that girls yielded to influence more readily than boys, and Coleman (1961) reported that cliques and crowds were more important to high school girls than boys. One has to wonder whether these sex differences would hold as true today, given the social and economic changes with respect to sex roles that have occurred in the last several years.

According to Gold (1958) and Patel and Gordon (1960), being able to influence others is a function of high status in the group. Gold has analyzed influencers according to their social power, and concluded that those with high power control resources in the form of traits that are valued in the group or in the particular setting. This interpretation makes it possible to view relationships among different kinds of influence in the reverse order from that usually suggested by learning theory. According to French and Raven (1959), a person who has the capacity to influence others through rewards may also earn the liking of those who are influenced, and thus also acquire referent power, the ability to influence because of liking or attraction. This process is similar to secondary reinforcement in learning theory. In the adolescent peer culture, it appears that those who have referent power can also acquire reward power through their capacity to confer acceptance or rejection.

Those who have low status or indefinite status are more likely to yield to influence than those high in status, and those who are more anxious and more dependent are more likely to yield than their less anxious, less dependent counterparts (Campbell, 1964). Thus, much influencing and conforming behavior in the peer group can be seen as a kind of social exchange. Those low in status, or anxious, or dependent, may conform in an effort to gain, or at least not lose, status in the group, or to avoid conflict or threats to feelings of security. It is one of the ironies of the peer group culture that there is no evidence that ingratiation increases group status; in fact it may very well perpetuate it (Glidewell, et al., 1968).

Teachers also may be involved in this process. Lippitt and Gold (1959) observed that teachers responded differently to students who were high and low in peer-ascribed status. An ingenious experiment by Flanders and Havumaki (1960) sheds light on this process. A lecturer unfamiliar to the students taught a group discussion, and praised students for their participation on a random basis, regardless of their actual participation. Students who received praise were given more sociometric status by their classmates than were those who were not praised.

Of course, consideration of conformity as a problem needs to be balanced with a recognition that social life requires a degree of conformity to laws, rules, and a respect for others. While there is little mention of it in the peer-group literature, it is easy to conceive of individuals who have many of the characteristics of yielders, but who are also deficient in their ability to read or respond to social cues. Such persons might be inadvertant nonconformers, and in the light of evidence reviewed here, it is likely that they would also be low in peer status. Another type of nonconformace might be found in deviant sub-groups who do not conform to the modal social norms. This phenomenon will be discussed as a separate problem in a later section.

Isolation

Asher, Markell, and Hymel (1981) describe two types of social isolates: neglectees, who are low in both positive and negative mentions in sociometric ratings; and rejectees, who are low in positive but high in negative ratings by peers. Consistent with what has been described earlier in this paper, Gronlund and Anderson (1957) found that rejectees apparently attempted to draw too much attention to themselves, while neglectees were excessively quiet. The prototype of the rejectees has been discussed already; the neglectees present a somewhat different picture, about whom much less is known. It would seem that rejectees would more likely be the recipients of teasing and bullying, or to engage in the same, than would neglectees.

Asher, Markell, and Hymel note that studies in which early social withdrawal is inferred retrospectively find correlations with adult mental health problems, compared to "normal" controls, but that longitudinal follow-up studies of social withdrawal do not show such effects.

What can be said with certainty is that isolated youth do not have access to the same kind of social comparison processes as their age mates. For the rejectees, this fact appears to lead to lowered self-esteem (Eichorn, 1963; Douvan and Gold, 1966;) and the general trend would be similar for neglectees. At the same time, peer relations may not always be the sole determining factor of adjustment among adolescents. Other influences, notably family, or significant other adults, may provide compensating benefits to the personal development of youth. In general, however, the restriction of opportunity for peer relations is also a restriction of opportunity for important social learning, and one would expect to find corresponding consequences in social knowledge and skills. Whether or not these consequences are critical for the development of any given adolescent may depend on their salience for that adolescent's activities, values, and life plans. Often, these problems become critical through the mediation of some adult expectation that adolescents ought to have close relationships: the requirement for physical education classes or the "social director" teacher who feels compelled to engage adolescents in social activities. It has been the experience of the author and his colleagues that such adult expectations are not sensitive to the individual needs of certain adolescents who do not fit this mold.

Recent research has begun to suggest that the link between social isolation and "adjustment" or mental health status may be mediated by at least two other important factors: stress and social support. An increasing body of literature has underlined relationships between stress and mental health problems, although the relationships are modest and not always direct (Sarason and Spielberger, 1979).

Numerous studies have accumulated indicating that social support systems can alleviate or moderate the effects of stress (Johnson and Sarason, 1979). In an interesting explication of this effect, Sandler (1979) found that significant correlations were found between stress and children's behavior problems in the absence of social support, that were not present when social support was available.

Trickett, Kelly, and Todd (1972) have analyzed in detail how various resources for social support can be mobilized in different high school environments. The need to examine alternative approaches to providing support for different people in different environments is illustrated by Gottlieb's (1975) study of the availability and use of different sources of support for four distinct student groups.

These findings caution against uniform interpretations of the meaning of social isolation, and against the implementation of uniform solutions. At the same time, social isolation does appear to be a significant risk factor for adolescents in vulnerability to the effects of stress.

Sex Role Identity

Erikson was of the opinion that "many a youth would rather converse, and settle matters of mutual identification, than embrace (1950, p. 228)". Whether or not contemporary youth would agree with this opinion, the fact remains that sex-role issues are significant in the establishment of personal identity. The issue is not so much sex-role identification, and the learning of sex-role appropriate behaviors, as it is achieving confirmation of the sex-role that one has developed (Kagan, 1964). Sexuality is closely related to these issues, of course. However, a complete examination of this latter issue would go far beyond the limits of this paper. Accordingly, sexuality will be discussed here only as it bears on the general issues of sex-role identity and the peer group.

Massad (1981) studied the relationship between sex-role identity and both self-acceptance and peer-acceptance among high school students. He found that high masculinity scores on the Personal Attributes Questionnaire (Spence, Helmreich, and Stapp, 1975) were related to self-acceptance and peer-acceptance for males, while for females, high scores on both masculinity and femininity (androgyny) were related to high self-esteem and high peer-acceptance. In addition to overall peer-acceptance, Massad assessed peer-acceptance in three different activity areas: friendship, school related and romantic. The same pattern of relationships was found across these three activities as for overall peer acceptance, although the degree of relationship varied somewhat for different activities. For example, high masculine males who were also high in femininity were chosen more often for friendship by other males, while this was not true for overall peer acceptance for males. Cross-sex typing (feminine males, masculine females), was related to peer rejection for both sexes. Massad also found that peer ratings of physical attractiveness were highly related to peer acceptance for romantic activities, less highly related to peer acceptance for friendship activities, and only moderately related to peer acceptance for school related activities. Physical attractiveness was not significantly related to self-esteem; nor to masculinity or femininity in his sample.

Massad's results are only partially consistent with other studies of college students, which have found that androgyny for both sexes is positively related to self-esteem (Spence, Helmreich, and Stapp, 1975). Massad interpreted the sex differences in his findings as reflecting the greater pressures on males than on females to avoid a crosssex identity, to which we might add that sex-role expectations for women have probably undergone more changes in recent years, and those changes have received more social support, than is the case for males. Differences between high school and college student findings might be explained on the basis of decreasing peer pressures from high school to college. Massad's sample was drawn from two private high schools, a fact that might make his results more comparable to a college population in SES, but also limits the generality of his findings for high school students.

Increased individual awareness and greater social salience make sexuality a central issue in adolescence. At the same time, the general social prohibition against open sexual expression also makes sex a central area of conflict during this period. While the literature on the occurrence of sexual fantasies during adolescence is inconclusive, there is fairly clear evidence of an increase of anxiety. In TAT stories, boys show an increase in sexual themes and a decrease in guilt or penance themes during adolescence, while the reverse tends to be true for girls (Douvan and Gold, 1966). These results generally can be understood in the context of increased sexual drives and differential blocking forces in the form of sexual morals for boys and girls.

Friendship and dating patterns provide an opportunity for exploration of various aspects of sexuality. The general trend is from same sex groups, to heterosexual groups, to dating and pairing. The modal age for dating reported by Douvan and Adelson (1966) was 14 for girls and 15 for boys. This period is marked by intense anxiety about sexual attractiveness and adequacy, according to Kagan (1964). Contrary to popular opinion, steady dating tends to occur more often among the more mature and popular students, rather than being the refuge of the insecure, and it is the exception rather than the rule that steady dating leads to marriage (Douvan and Gold, 1966). Douvan and Adelson (1966) found that virtually all girls are dating by age 17 and there is a decrease in their defensiveness with both boys and other girls.

If friendship and dating form a basis for exploring attitudes and feelings, sexual experience offers an avenue for testing and experimentation. Obtaining accurate data on incidence and ages of sexual experience is a controversial area and, not surprisingly, the findings have been variable. Consistent with popular belief, Hopkins' (1977) review of surveys of sexual experience among adolescents finds evidence for an increase in incidence and a trend toward earlier experience. However, the increases appear not to be as great as popular belief generally holds. More well-controlled studies tend to find sometimes strikingly lower rates than less well-controlled studies, and those reporting the highest rates generally have sampling deficiencies. The range in studies Hopkins reviewed was from 7 to 30 percent for females and 9 to 44 percent for males, among early adolescents aged 13 to 15. For middle adolescents (16-19), the range was 22 to 57 percent for females and 21 to 72 percent for males. These results, obtained in the late 1960's, compare to 2 percent for early adolescent females, 10 percent for early adolescent males, 18 percent for middle adolescent females and 42 percent for middle adolescent males in earlier studies. Across all studies over the years, there is a definite, but moderate, increase in incidence.

Group Pressures

Peer pressures concerning sexuality give rise to a variety of bases for both indulgence and abstinence, but the persistent standard appears to be a moral one. Besides traditional standards, Reiss (1967) found evidence that new standards for sexuality were being developed. He was able to identify four: the abstinence standard, the double standard, the permissiveness with affection standard, and the permissiveness without affection standard. Given this plurality of standards, it is understandable that decisions about sexuality would be made on the basis of a number of other factors. Under these conditions, peer pressures could influence both the standards selected and specific decisions to engage in sexaul activity. There is surprisingly little in the literature on the role of peer pressures in this area. D'Augelli and D'Augelli (1977) did report some subjects who engaged in sexual behavior in order to facilitate development of a relationship, but most decisions appeared to be made on the basis of personal moral reasoning and sexual philosophy. These, of course, could also be influenced by peer opinions.

Decision-making about sex requires a degree of maturity and cognitive complexity that develops slowly, if at all, for many adolescents. The author has found, as have many clinicians, that open and matter-of-fact discussion of sexuality with adolescents in treatment is uniformly a great relief to their anxieties about this subject. Both research and clinical evidence indicates that increased information and opportunities for social comparison would be of benefit to adolescents in coping with this developmental task.

Deviant Adolescent Sub-Cultures

The adolescent peer group is seen by many as a source of support for independence and adolescent rebellion. Yet, most authors agree that adolescent values are not significantly different from those of adult society, and many adolescents report seeking their parents' advice on significant decisions in their lives. Yet, it is evident that there are adolescents who do not adhere to this general pattern, and who vary in the degree of integration with or alienation from the modal peer group.

In the "tribe" group studied by Todd, it was clear that they did not share the same values about school that were held by the "citizens", despite the fact that there was some overlap in friendship choices between the two groups. Todd pointed out that the "tribe" did not include other students designated as "greasers" or "hard guys". In another school system, deviant sub-groups were termed "heads" and "reds", meaning acid heads and rednecks. In some Texas schools, a significant sub-group is termed "cowboys", and this group is generally primitive, aggressive, and racist. In a Michigan school, a group of deviant students were organized into an activity group by an adult in the community, which resulted in a significant reduction in the tendency of this group to get into difficulties. The school principal told the group that he was glad to see them involved in the club, because they were the bad element in town. Following that ill-advised speech, the group painted the words "The Bad Element" on the town watertower and resumed getting into trouble in the community.

Many people believe that these groups are the cause of delinquent behavior, but the evidence suggests that delinquency is more likely to follow a sequence of individual alienation from such social institutions as family and school (Hirschi, 1969), followed by individual delinquency, followed by increased association with other delinquents (Short, 1966). An exception to this pattern is the situation in which youngsters grow up in a deviant sub-culture in which they are recruited and socialized into delinquent gangs that are not deviant within that sub-culture.

For those adolescents who are not identified with the "leading crowd", these deviant sub-groups provide social support in much the same way that peer groups do in general. The content of exchanges within the group and the identity it develops are likely to be a function of commonalities among the members and the reactions of others to the group, respectively. For example, labeling is thought to play a role in perpetuating delinquency (Short, 1966). While aggression may lead to rejection in peer groups in general, in certain deviant sub-groups, aggression may be a valued resource and lead to increased acceptance (Lippitt, Polansky, and Rosen, 1952). Within these groups the problem may be too much embeddedness in the group, rather than isolation and lack of acceptance.

The degree of deviancy or integration of the group in the school culture will vary with the opportunities for group members to find meaningful roles and activities within the school program. Thus, one would expect to find more deviant sub-groups within large schools than within small schools, according to Barker and Gump's research, and in the constant environment schools that provided fewer varied activities for students than in the fluid environment schools studied by Kelly and his associates.

Newcomers

A special "deviant" group are newcomers to the school and community. So strong is the importance given to friendships in adolescence in our culture that many families avoid moving to different residences while their children are in this developmental stage.

Many studies of the effects of residential mobility are confounded with socio-economic class. Thus, Tetrau and Fuller (1942) found that among children 8 to 16, those who had moved most often were considered to be underachieving, but also had fathers whose SES was lowest. Both SES and achievement, of course, are factors that influence peer acceptance.

The effects of moving are not uniformly negative, however. Among fifth to eighth graders, Downie (1953) found that students with at least some geographical mobility had higher sociometric status than those who had never moved. A typical pattern of newcomer integration is uniform initial rejection or aloofness, followed by an increase in popularity for at least some students. Thus, Downie found that those students who had been in the school system one to two years had higher standing with their peers than those who had been there either more than three years or less than one year. That the experience hence the opportunity to relate to a diverse set of social groups, can enhance personal development and adaptation to future complex environments is suggested in studies by Sechrest and Jackson (1961) and Mann (1972).

Two other groups of "newcomers" deserve special mention. One of these is the new students who "move" from elementary to middle or junior high schools, or from those schools to high schools. The others are students who are reintegrated into regular classes from special education classes. The needs of the former group are often overlooked, although transition from school to school represents a major developmental crisis. Many of them have a sizable group sharing a similar fate who can provide social support; but, for those who are social isolates, this transition can be a high risk period. Research on the problems and effects of mainstreaming of special education students is just beginning to appear in substantial amounts, and it is too early to draw any general conclusions except that this is a significant problem area. Both of these events are stresses in which social support can play a critical role.

This review of the phenomena and problems of adolescent peer relations illustrates a wide range of needs and opportunities for intervention. In the next section, considerations relevant to data collection and interventions will be discussed.

Opportunities for Intervention

The preceding review has identified four levels of organization which need to be considered in thinking about adolescent peer problems and interventions: the ecology of the school as a social environment; classrooms; groups, cliques, and crowds; and individuals. Consideration of these different levels makes possible a range of varied interventions and enriches the diagnostic and planning process.

Trickett, Kelly, and Todd (1972) provide a comprehensive framework based on ecological principles for assessing high school environments and planning interventions. Their framework is applicable to junior high and middle schools, also. They employ four principles:

The principle of interdependence calls attention to relationships between structure and function within an ecosystem. Numerous interdependencies operate on any given level and across different levels of an ecosystem. This principle is useful in assessing how different activities and programs are related to each other within the school environment, and how programs are related to the development and utilization of individual competencies.

The principle of cycling of resources refers to the channeling and use of energy within the school setting. Of particular importance here is human energy and the ways in which people in the environment can serve as resources for each other.

The principle of adaptation describes how the environment shapes and defines adaptive behavior. This principle calls attention to the fact that behavior that is adaptive in one environment may be maladaptive in another. Attention to requirements for adaptive behavior limits the utility of idealized universal personality traits or behaviors that are presumed to fit all environments.

The principle of succession underscores the fact that environments change over time, and that changes in the inhabitants and the socio-cultural context of a school environment require flexible and open-ended interventions. This principle also defines a need to monitor changes in the environment and their implications for changing requirements for adaptive behavior.

For school psychologists, the opportunity for intervention often comes in the form of a referral of an individual, or several individuals, who are having peer problems. The usual individual assessment procedures are often inadequate for a complete understanding of these problems. Moreover, responding to these requests one at a time can be a very ineffective manner of resolving them. The psychologist can respond to these problems more effectively as a consultant and action researcher than as an individual diagnostician and therapist, in many cases.

School Level

Assessment of peer group problems begins with an understanding of the school environment: size, demographic composition, population exchange rate, and the opportunities these factors may create or limit for student involvement in school activities. According to the principle of interdependence, school environments may vary in the diversity of activities that are provided for involvement and development of individual talent. These factors are more likely to be related to problems in large and constant environment schools. On the other hand, it may be that activities are available, but are not well-known to students or are not effective in recruiting students for them. According to the results of this analysis, the school psychologist may become involved in surveys of student interests and talents, awareness of and use of existing activities, and anticipated use of potential activities that might become available. In large and constant environment schools, there may be too few activities or too little variety; in small schools there may be too much pressure to participate; and in fluid environments, students may have trouble finding and selecting activities.

These results may be fed back to and discussed with faculty and staff. Following the principle of cycling of resources, untapped staff talents may be identified and employed. As the number and type of activities are increased, norms and expectations for adaptive behavior may change, and, over time, activities may need to be modified to meet differing student needs and staff talents, according to the principle of succession.

Classroom Level

At the level of classrooms, a number of interventions have been shown to be effective in changing classroom social structure. Openness of program and democratic classroom atmosphere, and, democratic and sensitive teacher attitudes, have already been mentioned as factors that can decrease social isolation, reduce aggression, and increase cooperation and involvement in the classroom. These are problem areas that may be identified by classroom observation and analysis of student-student and student-teacher interactions. There are a number of systematic observational methods that are available. Problems in this area can be addressed by the psychologist through consultee-centered consultation (Caplan, 1970; Meyers, Parsons, and Martin, 1979) with teachers.

Modifications of the activity program of the classroom as a behavior setting can also achieve changes in social structure and consequently in behavior. Most of the recent research has focused on cooperative learning structures, goal structures, and reward structures. A series of studies at the Johns Hopkins Center for Social Organization of Schools has demonstrated that cooperative learning formats not only increase cooperative interaction and sociometric acceptance, but can do so across racial lines (DeVries, Edwards, and Slavin, 1978; Slavin, 1979). These studies have made use of a format called Teams-Games-Tournaments, and Student Teams-Achievement Divisions. Small groups of students work together and compete with groups of comparable ability.

The principle of interdependence can be used to understand this phenomenon. That is, there is an interdependence between cooperative behavior and goals. However, that same principle suggests that changes in one aspect of a social system may also produce changes in another aspect. Use of such formats might, for example, raise concerns about academic achievement. These researchers have produced evidence to indicate that these formats also produce gains in achievement. The cooperative learning formats were found to be superior to peer-tutoring, which produced a decrease, rather than an increase, in achievement. The most recent research suggests that the achievement gains may be the result of intensive teaching rather than just cooperation (Gump, 1980). However, the peer-group benefits of this approach are unlikely to have resulted from the teaching alone.

An approach that uses process interdependence is the "jigsaw" technique (Aronson, et al., 1978). Here, each student is assigned a "piece" of the group assignment, and there are several groups in the class, selected for heterogeneous composition. This technique has been shown to produce increases in self-acceptance, acceptance of others, and in the ability to take the perspective of another, as opposed to egocentricity.

Cooperative learning formats have also been used effectively to promote social acceptance of mainstreamed handicapped students (Johnson, et al., 1979; Johnson and Johnson, 1981). While the evidence on the effects of these formats on academic achievement has not been uniform, there is no clear evidence that they decrease achievement, and the social learning to be achieved appears to be substantial. In at least one study, the jigsaw method produced greater academic gains for minority than majority students, although both groups gained significantly (Lucker, et al., 1976).

These formats are an example of programmed cycling of resources, in which students become resources for each other in formalized activities. While these procedures provide a useful opportunity for student social development, the principle of adaptation suggests that introduction of these formats may very well change the norms for cooperative behavior, making the adaptive task for those very few students who cannot adapt to cooperative situations stand out more visibly.

Accordingly, as Trickett, Kelly, and Todd emphasize, there is a need for a variety of alternative interventions, not just a single approach. Since most of these interventions have been introduced in late elementary and early middle or junior high school grades, the principle of succession would call attention to the need to follow up these students to see how social structures and social attitudes carry over to subsequent school experiences where the environment is more competitive or individualistic. On the other hand, interventions may need to be carried out at higher levels of the school system, too. The Johns Hopkins group, for example, has implemented their format successfully at the high school level.

The relevant data for classroom level interventions is sociometric analysis of the classroom social structure. Too central a structure may be an indication of problems. The psychologist's role would be that of program-centered consultant. Such program changes are likely to be more well-received in some school environments than in others, most likely in those school environments that analysis at the school level indicates are open to innovation and who have enough problems with peer relations among students to feel some pressure to innovate. Here, the literature on diffusion and adoption of educational innovations is likely to be helpful to the psychological consultant (Rogers, 1962; Miles, 1964).

The approaches outlined above are preventive from the standpoint of peer-group problems. They can be expected to reduce social isolation and rejection, and consequently have an impact on aggression and student self-esteem. They cannot be expected to resolve all problems, and problems that may not be amenable to intervention at this level may be raised as forms of resistance to intervention. Two possible unintended consequences of intervention need to be anticipated at this level. One is that these interventions will require cooperation among the school faculty, and support for those teachers who are involved in innovation. If this support is not present or forthcoming, it is the psychologist's task to attempt to promote it before embarking on encouraging classroom interventions that may jeopardize the standing and security of individual teachers. A second unintended consequence that derives from the first is that if interventions are planned only on this one level, and in isolation from the rest of the school social structure, any difficulties that are encountered may reflect adversely on the credibility of the psychologist, and perhaps other members of the special education support team, in other activities. Thus, the psychologist will require support for innovative interventions, too. A significant reconnaissance task for the psychologist is to identify and cultivate support for innovation.

Group, Clique, and Crowd Level

Phenomena at this level may include two problem areas: intergroup conflict, and group support for individuals. The information generated in the above two levels may be useful in identifying significant groups, cliques, and crowds in the school environment (Hallinan, 1979). A variety of methods for reducing intergroup conflict have been employed. One of the soundest principles derives from Sherif's Robbers Cave experiment, in which intergroup conflict was reduced by the identification of superordinate goals (Sherif, et al., 1961). Another important principle with preventive implications is the involvement of representatives of student groups in school committees (Ochberg and Trickett, 1970; Arnhardt and Duranceau, 1979).

The strategic use of intentional groups can facilitate both social interaction and personal development during this developmental stage. Newman

(1974) points out the widespread existence of different group phonomena in schools, including staff as well as students, and describes a variety of approaches employing group learning techniques. Human relations training has been used in a number of settings to enhance understanding between adults and youth (Hassol, 1970). Keutzer, Fosmire, Diller, and Smith (1971) used human relations training to assist the adjustment of students and staff in a new high school. Compared to a similar control school, students in the school that received human relations training reported more positive and fewer negative events, engaged in more purposive activity, and engaged in more relaxed interactions with teachers. Teacher morale was also considerably higher at the experimental than at the control school.

The author and his colleagues have begun to use support groups for students new to a middle school who are showing signs of stress in peer relations. It is anticipated that this form of intervention could be useful for all students new to the school as a temporary aid in making initial adjustments. Such groups are used routinely in the special education classes with which we work to provide support, clarification of rules, recognition of accomplishments, and experience in positive social interaction. We have been impressed with the positive social actions shown by these students toward new students who come into the class, compared to the reception new students sometimes receive in regular classes. An important part of this group process is to train the teacher to become the group facilitator. Not incidentally, this process also provides support for the teacher in working with groups of students who can often be stressful.

In these interventions, the role of the psychologist is that of group facilitator. The group format might include sensitivity training, values clarification, role-playing, and assertiveness training, as well as information sharing and support. Adults in these groups have an opportunity to model for students positive reinforcement, openness, and directness in recognizing positive qualities and confronting interpersonal difficulties. One consequence of these groups is increased and more open interaction between students and adults outside of groups and classrooms.

An important source of data at this level may be observation of behavior in classroom and hallway settings. We have found it useful to compare observations of social interaction of students in structured and unstructured settings; e.g., classrooms and hallways, as well as during organized (a lesson) and unorganized (transition periods) times within classrooms. A caution is needed concerning use of simple frequency counts of interaction. Asher, Markell, and Hymel (1981) have presented a critique of the social validity of such frequency counts, and their recommendations that more attention be paid to the quality than to the quantity of interaction is in accord with our own experience.

Another useful set of data can be obtained from social network analysis (Mitchell, 1974; Boissevian and Mitchell, 1973). While teacher observation of student's systems of social support can often be insightful, they are unable to observe the student in all settings, and the network analysis technique can be useful in identifying varied sources and utility of social support in different areas of the student's life. Observation and analysis of networks may reveal ineffective interactions or problems with support networks.

Individual Level

It may be a logical contradiction to talk about individual interventions in peer-group problems. On the other hand, it is an important diagnostic process to differentiate between problems of individual maladaptation and problems of peer-group relationships. Most adolescents with adaptive difficulties are also going to have difficulties with their peers, because of the pervasive salience of peer-group relations at this age. For some, their awareness of social cues and social process, their social skills, are so limited or distorted as to require individual intervention, either in or outside the school setting. It is the author's bias that social level interventions, i.e., groups, classrooms, and schools, are the preferred methods of intervention for peer-group problems. But it must be recognized that some students require individual intervention before, along with, or instead of, social interventions.

Diagnostic clues to difficulties that may be individually-centered rather than peer-centered include especially low scores on the Comprehension and Picture Arrangement subtests of the Wechsler intelligence tests, signs of aggression and poor impulse control, and persecutory and rejection themes, in projective techniques (but, see Lemert, 1965). These indications are suggestive, and confirmatory evidence is usually needed from classroom observation. Another diagnostic clue of individual-centered problems is the involvement of the adolescent's difficulties with his or her family. Disruptions in behavior, including increased peer difficulties, that are correlated with disturbing events in the home and family may indicate a need for individual intervention.

Depending on the nature of the problem, individual assertiveness training, values clarification, stress innoculation and relaxation procedures may be helpful. Recently, a variety of approaches to social skills training have become popular, although these usually require a group setting.

Occasionally, a crisis intervention approach is useful. Crises of this nature may include stress growing from confusion between personal values and peer pressures, such as in questions of sexual behavior, dating rivalries, or in the management of difficulties in friendships. Two important techniques in intervening in crises are the mobilization of cognitive resources and the mobilization of social resources. In the former, the adolescent can often be helped simply by being made aware that he or she has choices that can be made, being helped to consider alternative outcomes, and being supported in making a commitment to one of the alternatives. In the latter, sources of social support, alternative opinions, or authoritative information may also be helpful in considering alternatives and making commitments.

Of course, none of these indications for individual intervention should obscure the adolescent's need for social support in the school setting, or contraindicate by themselves the adolescent's involvement in other social level interventions.

Summary

This paper has reviewed some of the personal and ecological influences on adolescent peer relationships and problems. The importance of peer relations as a basis of social comparison and social learning during this difficult developmental period has been emphasized. An ecological framework has been used to present this material in order to emphasize opportunities for preventive intervention.

It has been an implicit assumption throughout this paper that adults cannot, and should not, solve adolescents' problems for them. Adults can arrange aspects of the physical and social environment so as to optimize opportunities for social learning and to increase the possibilities for effective coping and positive outcomes. The learning is often painful for both adults and adolescents, and the positive outcomes are at best enhanced capacities and freedoms for continued growth and learning, often involving continued struggle. Effective interventions during this period may be preventive to the extent that they enhance the adolescent's capacity for mutual interpersonal relationships, develop a sound basis for self-esteem, and preserve a range of alternatives for future coping and adaptation. We cannot, in fact, predict future adaptive demands that adolescents may encounter as adults. The best we can do is to help them learn to cope with diversity and change, and the adolescent period is an especially opportune time to accomplish that task.

One of the features of adolescence in our society is a partial age-based segregation, in which adolescents have limited contact with adults. This segregation is rationalized as an opportunity to learn independence. In a more primitive society, such segregation might be viewed as a denial of adult status. Often, adolescents do things that arouse impulses and threaten defense mechanisms of adults, and the resulting discomfort may cause the adult to reflect, "I'm glad I don't have to go to school with them." Adolescence, then, is sometimes regarded as a deviant status not unlike minority group status.

At the same time, our society worships youth. Adults and adolescents share many of the same values, some affect the same styles of dress, and no doubt many adults envy the attributes, but not the status, of adolescents. Through sports and other organized and unorganized activities, youth provide a form of vicarious gratification for adults.

We should remember that despite the talk of independence, generation gap, and the like, the goal of adolescence is to attain adult status. Human beings learn most efficiently through imitation, and we often systematically deny youth this opportunity. It might be added parenthetically that when they do imitate some of adults' less desirable qualities, we even punish them. I would like to advance the hypothesis that one of the major rewards of adolescence is to gain genuine acceptance by adults, and that attainment is healthiest when it can be done to some degree on the adolescent's own terms.

Therefore, to the extent that adolescents can be provided opportunities to interact with adults in informal ways, that is, in an atmosphere of acceptance, their social learning and development will be enhanced. To the extent that youth can be provided opportunities for close interaction with peers, their needs for immediate coping with the uncertain demands of adolescence can be met, with positive implications for future living. When these relationships break down, to the extent that adolescents have access to support and encouragement, they can learn to cope with stresses in life that we all face.

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Tic Disorders

Joseph Richard

Abstract: Tics, although a low incidence behavior in the general population, when they do occur, can bring considerable difficulty in those experiencing them. This in turn raises the individual's anxiety level, hence generating more tic behaviors, a vicious cycle. This article was written with the purpose of giving the reader a method of identifying tic disorders as well as procedures to break this vicious cycle.

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Introduction

Many of us, throughout our lives, will experience some type of nervous cough, eye blink or facial spasm for a few hours or even days. After this short period, we feel relieved that this behavior, which was not under our control, had spontaneous remission. For some individuals, this is not the case. This nervous behavior continues and the person begins to become more self-conscious of it, which raises his anxiety and in turn increases the frequency of his or her tic. Although most persons who have tics apparently do not seek treatment for their disorder and those who are referred have had the problem for greater than one year (Zausmer, 1954) there are many treatment approaches which are effective. Also, unlike many other "psychiatric disorders," tics are overt behaviors which easily lend themselves to objective observation and thus fairly simple diagnosis and measurement.

This chapter is an attempt to provide the psychologist with a basic understanding of the types of tic disorders, their diagnosis, treatment and monitoring methods. The chapter begins with a basic definition of tic disorders and how to separate these from other non-tic movement disorders.

Definition and Background

It would be misleading to state that there is a universally accepted definition for tics, although there are numerous components within various definitions that are similar. This author will use the definition stated in the Diagnostic and Statistical Manual III initially and later report definitions related to specific theories of etiology and treatment.

DSMIII Definition

> "A tic is defined as an involuntary rapid movement of a functionally related group of skeletal muscles or the involuntary production of noises or words." (DSMIII, 1981)

The DSMIII makes the distinction between the Transient Tic Disorder, Chronic Motor Tic Disorder, and Tourette's Disorder. As do others (Golden, 1978; Gumbert, 1962; Showalter, 1980), the DSMIII states that "tics should be distinguished from other motor disturbances." These include choreiform movements, dystonic movements, athetoid movements, myoclonic movements, hemiballismic movements, spasms, hemifacial spasms, synkinesis and dyskinesia. The following are behavioral definitions of movements which may appear tic-like but must be differentiated from tics.

Non-tic Movement Disturbances

Choreiform Movements - "Dancing, random, irregular, non-repetitive movement" (DSMIII, 1981).

Dystonic Movements - "Twisting movements interspersed with prolonged states of muscular tension" (DSMIII, 1981).

Athetoid Movements - "Slow, irregular, writhing movements, most frequently in the fingers and toes" (DSMIII, 1981). "Although there is no stereotype, prolonged observation shows a repetition within the larger variety of movements" (Golden, 1978).

Myoclonic Movements - Golden (1978) describes myoclonic jerks as "rapid stereotyped and nonrythmic. Unlike tics, there is no predisposition for any part of the body or muscle group, and the movements are in random direction in relation to the body access."

Hemiballismic Movements - Golden (1978) describes these movements as being "the rarest of the involuntary movements in children." They include wild, high amplitude, flinging movement of the limbs and are rapid, nonrhythmic and irregular. Usually a single joint is involved.

Spasms - are stereotypic, slow and prolonged movements that involve groups of muscles.

Hemifacial Spasms - "Irregular, repetitive, unilateral jerks of facial muscles" (DSMIII, 1981).

Synkinesis - "Movements of the corner of the mouth when the individual intends to close the eye, and its inverse" (DSMIII, 1981).

Dyskinesia - A movement disorder related to drug reactions to Phenethyazenes which result in alternations in muscle tone and abnormalties in posture.

Tremors - Unlike tics, the movements of tremors are rythmic. They also involve the muscles around a single joint (Golden, 1978).

Tic Disorders

1. Transient Tic Disorder (also called Transient Motor Tic)

Transient Tics are those with duration of less than one year (Showalter, 1980, DSMIII, 1981). They are somewhat developmental in nature in that their incidence peaks at the seven year level (Showalter, 1980) and their frequency in the population between ages six and twelve years is 12 percent (Lapouse & Monk, 1964), and up to 20 percent in children whose parents had a tic disorder as a child (Abe & Oda, 1980).

Transient Tics may vary in strengths and frequency and are exasperated under stressful conditions. They do not occur during sleep and in many instances will occur only in the presence of another individual or stimuli (Schulman, 1974). Also, the individual should be able to suppress the tic voluntarily for minutes to hours (DSMIII, 1981) although this will usually result in a "rebound of activity" (Showalter, 1980).

The most common movements observed in the transient tic disorder are the eye blink and other facial tic. Vocal tics are rarely seen in the transient tic disorder and Golden (1978) states that "patients exhibiting motor and vocal tics are diagnosed as having Tourette's Disorder."

2. Chronic Motor Tics

Chronic Motor Tics are those which occur over a period of greater than one year and do not vary in intensity over weeks or months (DSMIII, 1981). Basically, they are all transient motor tics whose duration is greater than one year. If vocal tics are present, they are usually soft and many times unnoticeable. Zausmer (1954) reports that tics are ordinarily over a years duration before referral, hence, chronic motor tics are those most likely to be referred to the school psychologist.

3. Tourette's Disorder

Bruun and Shapiro (1972) have intensively studied thirty-four patients with Tourette's Syndrome over a six year period. In their sample, they found that the onset was between the ages of 2 and 13. The initial symptoms were simple tics. They reported a good deal of symptom substitution and that the simple movements became multiple and also more complex, with the appearance of being purposeful but always being involuntary.

Any individual who develops a simple tic is theoretically at risk to develop Tourette's Syndrome. Although the main differentiating criteria for Tourette's Syndrome and Chronic Motor Tics are sounds or words (barking, copralalia, throat clearing, etc.), the complicated movements which over one-half of Bruun and Shapiro clients demonstrated should also be a source of early warning for Tourette's. They reported their clients movements to include "jumping, squatting, kicking, hitting, touching various objects, touching or kissing people, and many others" (Bruun & Shapiro, 1972).

Although copralalia (use of foul words) has often been synonymous with Tourette's Syndrome, only slightly more than one-half of Bruun and Shapiro's sample demonstrated this behavior.

It is not the purpose of this author to verse the reader on how to diagnose Tourette's Syndrome, only to possibly identify the individual who might be at high risk for that classification. Even among physicians this syndrome is often misdiagnosed and the mean time lag between onset of symptoms and diagnosis for Bruun and Shapiro's sample was nine years (1972). Some 80 percent of individuals with Tourette's Syndrome are still diagnosed by their parents (Golden, 1978). This author strongly suggests that if we as school psychologists become familiar with an individual who is at risk for being diagnosed having Tourette's Syndrome to contact the Tourette's Syndrome Association, Incorporated (Bay Side, Long Island, New York--Phone: (212) 224-2999) in an attempt to ascertain a physician in your locality competent in this area. There is medically-related relief or control (Halperidol) for the individuals suffering from Tourette's Syndrome.

Some general facts on Tourette's Syndrome: Incidence is estimated between .0001% - .001% in the U.S. population (Shapiro & Shapiro, 1979); it is more common in individuals whose parents have Tourette's (Comings, 1980);

it is not a degenerative disease, though life long; intellectual functioning is not effected; emotional disability is not present although the individual will encounter obvious social hurdles; and their physical health is generally good (Bruun & Shapiro, 1972).

As with Transient Tics, Tourette's Syndrome is exasperated under stressful conditions. Because of this, it is suggested that when working with a client identified as having Tourette's Syndrome, the school psychologist worked with the client's class to:

A. Educate the students about the disorder, that is, that the movements and noises that their classmate is demonstrating are not under his control, like hiccups are to them.

B. This disorder is not usually a debilitating condition and that their classmate although experiencing stress is able to be a respectful contributing member of the class as well as his peer group.

Diagnostic and Measurement

There have been no systematic methods for the classification of Tic Disorders available in the literature reviewed by this author, only essential features and diagnostic criteria. No methods for data collection. This author has devised a practical framework for the reader to utilize when attempting to diagnose and remediate Tic Disorders.

1. Parent Interview
2. Direct Recording of Observation
3. Multiple Baseline Observations

During the parent interview, the psychologist should focus on ascertaining the following information: 1) the duration of the disorder (greater than one year = chronic), 2) any traumatic event which might have occurred prior to onset of the disorder (this information might be useful in remediation stage), 3) the course of the disorder (symptom change, possible Tourette's), 4) conditions (if any) that aggravate the disorder (Chronic Motor Tics are not effected by stress).

The descriptive observation will provide the examiner with data to compare the client's atypical movements to those non-tic movements described earlier in the chapter. This will aide the psychologist in determining if the child is demonstrating true tic behavior. Also, this information could be useful in determining if the tic is under stimulus control being reinforced by others (Schulman, 1974).

Multiple baseline observations should be conducted to determine the frequency and duration of the tic(s) across situations as well as the reliability of the parents reporting. This will be helpful when deciding if the parents are going to be the soul reporters during and after intervention or follow-up. This author suggests that baseline data should be established in the home, school and other significant environments to the child.

Student's Name ______________________

Behavior ______________________

Figure 1.

MULTIPLE BASELINE RECORDING SHEET

DATE	TIME PERIOD	SETTING	ACTIVITY	DURATION OF TICS, IN SECONDS													TOTAL TIME	FREQUENCY

To use the multiple baseline recording sheet illustrated in Figure 1, the observer will need a stopwatch. This will allow you to record duration of each tic as well as calculate the frequency after the observation.

Once the parent interview, direct recording observation and multiple baseline observations have been completed, the examiner will be able to determine the following:

1. Is the behavior a tic disorder?
2. Is the tic transient or chronic motor?
3. Should the child be referred to an agency familiar with Tourette's Syndrome (i.e., contact the Tourette's Association)?
4. Will the school psychologist treat the tic?

Treatment

The next section of this paper was written in an attempt to provide the reader with treatment approaches which this author has reviewed in an organized fashion. Each treatment is reviewed in relation to basic research that has been done with individuals who have tic disorders. It is presented in such a manner as to present the basic elements of the procedure (i.e., duration, method and measurement) as well as its efficacy. The treatment methods are Extinction, Time-Out and Positive Reinforcement, Prolonged Exposure, Medication, Negative Practice, and Positive Practice or Competing Response Practice.

Extinction

Both Schulman (1974) and Zausmer (1954) have demonstrated the effectiveness of removing parental attention on decreasing the frequency of tics in children. Zausmer (1954), in working with 96 children in the Pediatrics Department at the Royal Liverpool Children's Hospital during a five year period, showed that 76 percent of the children followed up would had "marked improvement" through the use of extinction procedures. Twenty-four percent were not effected by the treatment. The mean duration of tic behavior in this study was four and a half years prior to treatment. During the treatment, parents also received "parental guidance" which consisted of encouragement to ventilate anxieties as well as reassurance about the child's physical and emotional status.

The parents in Zausmer's study were told that the tics were a "safety valve resulting most commonly from parental criticism and restriction." In relation to the extinction of the behavior, the parents were asked to ignore the tics and not to reinforce (or acknowledge) its occurrence. Zausmer conducted his follow-up inquiries two to three years after treatment had been terminated.

Schulman (1974) reported his success with extinction procedures with a fourteen year old boy who had a nine year history of multiple tics. Baseline data indicated that the tic occurred between three to fifteen times per minute and almost exclusively in the presence of the mother. Some family therapy was instituted and it consisted of "contingency contracting, behavior rehearsal, educating the parents on how to use positive reinforcement and the differential reinforcement by the therapist."

The parents were asked to ignore the ticing behavior and also keep a record of its antecedence and consequences. After one week, the frequency of tic behavior increased severely. During the second week, the child did not demonstrate tics before school in the presence of the mother. By the fifth week, the parents reported two successive days without tics. After the ninth week, the parents reported only two or three incidences of mild facial tics and therapy was terminated by the parents.

Unfortunately, Schulman's two month follow-up indicated the resumption of parental attention to the tics and the ticing behavior had returned to the mid treatment level.

Time-Out And Positive Reinforcement

Varni, Boyd and Cataldo (1978) used Time-Out and Positive Reinforcement with a seven-year-old boy with multiple tics. They included shoulder shrugging, facial tics, rump protrusion and a vocal tic. Facial and vocal tics only were treated although other tics were reduced in frequency, concomitant with facial tic reduction.

Initially, the child was treated at the clinic for facial tics only. An awareness procedure, which consisted of the child looking into a mirror and reporting each facial tic verbally on occurrence was step one at the clinic. When the child acquired competency in this phase, treatment began. At the clinic, the child would be allowed to play in the corridor (for an unspecified amount of time) if he reported fewer than ten tics in five minutes. If the child reported greater than ten tics, he was placed in a barren room for five minutes. He was also reinforced verbally for non-tic behavior.

Over the twenty-nine session treatment, the expectations for the child to receive the reinforcement became more stringent and by the eleventh session he was told that he could not do more than five facial tics for reinforcement. No facial tics by the twenty-third session.

The home intervention consisted of the following: The child was placed in time-out for five minutes each time he demonstrated a facial tic (he was also told why he was being placed in time-out), when the child did not demonstrate a facial tic over a one-half hour period, he would receive a star which would later be rewarded by preferred activities. After the ninth week of home intervention, vocal tics were included in the home program with the same contingencies.

Originally, the child in Verni's, et al. study (1978) demonstrated facial tics for a mean rate of 87 percent of the ten second intervals observed vocal tics and were at the mean rate of 15 percent of the ten second intervals observed. By the twenty-third session, all tics were at the zero occurrence level. By week twenty, the same results occurred in the home. A thirty-two week follow-up indicated comparable results in the home.

Prolonged Exposure

Prolonged Exposure is a desensitization procedure described by LaMontagne (1978) as flooding in Vivo. Flooding is a behavioral technique where the individual is exposed to the stimulus which they find nauseous or anxiety producing, for long periods of time (in contrast to systematic desensitization). This treatment approach is usually utilized for individuals suffering from phobias. LaMontagne (1978) treated a fifty-two year old woman's pig-like grunting sound tic with prolonged exposure. The woman reported the tic starting eighteen months prior to treatment. The woman reported the tic to occur infrequently at home but increased in volume and frequency in social situations. It was felt that this woman had a special form of social phobia. A twenty week treatment plan consisted of the client sitting silently while four students looked at her for increasing periods of time. Sessions one through seven consisted of three ten minute periods with five minutes rest between, sessions eight through fifteen, thirty minute periods of silence, session sixteen through twenty, each session, sixty minutes of silence.

Although no baseline data was reported in this study before treatment, the mean rate of the tic was 5.5 per minute during the first treatment session. After ten sessions, the frequency had dropped to approximately two per minute during treatment and below .5 per minute at the twentieth session when treatment was terminated. It had remained at approximately this level upon follow-up six months later.

Medication

Shapiro and Shapiro (1981) report Halperidol (Haldol) to be the treatment of choice for Tourette's Syndrome. In their survey, 76 percent of patients treated with Haldol had at least 70 percent improvement. For 25 percent of all patients surveyed, the side effects outweighed the benefits. Some of the side effects of Haldol include drooling, restlessness and muscular rigidity. Showalter (1980) suggests that initial reports indicate Pimozide has similar therapeutic results to that of Haldol but with less cognitive blending, but not substantially.

Barker (1975) after reviewing Connell, Corbett, Horn and Matthews' (1967) study reports, "this is perhaps the only treatment for children with tics," speaking of Halperidol. Although these researchers did reduce the tic behavior in these adolescents by 50 percent in two weeks, their clients also suffered the side effects of mild distonia and akathisia (the inability to remain seated).

Negative Practice (Massed Practice)

Dunlap (1932) was the first to claim that undesirable habits could be reduced by having the individual repeat them deliberatley. Yates (1958) reported that because Dunlap did not give details of his procedure or experimental details of its validity, that he would further expand on Dunlap's hypothesis. Basically, Yates (1958) hypothesized that the tic may be seen as a learned habit that has attained its maximum strength. It should be possible therefore to extinguish the habit by building up a negative or incompatible habit of not performing the tic (Yates, 1958). If the subject is given massed practice in the tic, then reactive inhibition should build up rapidly. When reactive inhibition reaches a certain point, the patient will be forced to rest or not perform the tic (Yates, 1958). This hypothesis is in agreement with Hullian Learning Theory.

Yates' (1958) client was a twenty-five year old woman who had a breathing tic, coughing tic, a nasal explosion and an eye blink tic. Yates' hypothesis also states that some tics originate after or during a traumatic experience "the tic may be a dry producing conditioned avoidance response...the movement produces or coincides with the sensation of the fear inducing stimulus, it acquires strength through reinforcement" (Yates, 1958). This woman's ticing behavior originated at a time when she felt she was being suffocated, when actually being anesthetized, ten years previous to Yates' treatment.

The client was asked to perform the tics for two session per day. Each session the client performed each tic for five one minute trials with one minute rests between. Although no baselined data was reported, the client reduced the frequency of all of her tics significantly over the three hundred and fifteen session treatment. Also, Yates (1958) postulated that practicing the habit for a longer period of time within sessions would build up a greater degree of reactive inhibition. This was tested within his experiment having the client practice the nasal tic for longer periods of time and this did reduce this tic to a lower frequency than others within the study.

Azrin, Nunn and Frantz (1980) used negative practice to treat twelve clients whose average duration of tics was seventeen years, prior to treatment. Basically, their clients were instructed to voluntarily perform the tic in front of a mirror for thirty second intervals over a one hour period with brief rests between. Also, they were instructed to repeat "this is what I'm supposed not to do." They would continue this exercise until four full days of tic-free behavior. The exercise was gradually discontinued over the next two week period. The clients were also asked to practice the exercise for thirty seconds each hour after treatment was terminated. Results indicated that two of the twelve clients were symptom free and that overall ticing behavior was reduced by one-third within the group.

Feldman and Werry (1966) were unsuccessful with their attempt to reduce the ticing behavior of a thirteen-year-old boy who had multiple tics with negative practice procedures. They attributed their lack of success to the boy's overall elevated level of anxiety and felt that if the general level of anxiety is too high, it must be dealt with prior to instituting negative practice.

Positive Practice (or Competing Response Practice)

Positive practice is a form of overcorrection which requires the individual to perform the appropriate behavior repeatedly (Axelrod, 1978). In the above mentioned study (Azrin, et al., 1980) compared the effects of negative vs. positive practice on the tic behavior of two matched samples. While negative practice reduced the tic behavior by one-third within the sample, positive practice successfully reduced the tic behavior by 97 percent after eighteen months of follow-up.

The competing behaviors, or incompatible behaviors, which Azrin, et al. (1980) required their clients to perform in substitution for the tics were (1):

Backwards Head Jerking Tic - "With the head in the center position, contract neck flectors so that the head tilts slightly downward. Neck appears shortened and bulged. (If this reaction is inadequate, push the chin to the sternum. Gradually decrease the reaction so that the head is raised off the sternum in the more natural head upright position)".

Sideways Head Jerking Tic - "Keep the head in the center position and contract neck flectors so that head tilts slightly downward. If this reaction cannot be retained for three minutes, is inadequate, put hand on side of face and push the head the direction opposite to the tic. After straightening the opposite neck muscles, change to the isometric neck flector reaction without hand assistance."

Shoulder Jerking Tic - "Contract shoulders by depressing the shoulders down as far as they will go while keeping the arms close to the body."

Head Shaking Tic - "Shift head posture from very erect or angled to drooping or tilting the head slightly forward. Slightly contract neck muscles that oppose shaky movements."

Wrist Tic - "Push hands on arms of chairs, desk, leg, etc. and contract the muscles so that hands are pushing opposite the tic movements (i.e., contract the hands down if the wrists jerk upwards)."

Neck Stretching Tic - "Contract neck flectors and depress head so that the neck appears shortened."

Moving Shoulder and Arm as if Disengaging Arm From Jacket Tic - "Contract shoulder by depressing the shoulder downward and pressing arm to side of body."

In another study by Azrin and Nunn (1973), positive practice procedures used with awareness training, habit control motivation and generalization training, they were successful in reducing tics as well as nervous habits to the zero fequency level within one or two sessions.

Awareness training consisted of the client verbalizing the details of his tic to the counselor while looking in the mirror when needed. Also, the counselor would teach the client to detect when the tic occurred.

For habit control motivation, the client reviewed with the counselor the inconveniences and social embarrassment the client suffered because of the tic. Significant others to the client were also instructed to praise him for his efforts as well as remind him to practice. The counselor would also phone the client periodically to relay basically the same message.

Generalization training was performed within the clinic. In this situation, the client was asked to imagine common situations in which the tic occurred at a high frequency. The client was asked to detect the tic himself and if he did not, he was required to practice competing exercises for three minutes.

Treatment and Summary

Numerous treatment approaches to the reduction of tics have been reported by this author. Though all have demonstrated some success, they do vary in their degree of success as well as length of treatment. This author suggests that the following variables be considered when deciding if treatment is a consideration and if so which treatment to employ: 1) Since extinction procedures have demonstrated their efficacy and research has born out that some children who have tics only carry out this behavior in the presence of significant others, this author suggests that this procedure would be a logical choice for working with children with tics with less than one year duration. 2) Expected competency of those individuals carrying out the treatment program. A few of the therapists do not perceive the person(s) who surround the child as ones who would competently follow through with your recommendations, a direct approach (i.e., flooding, positive practice, etc.) would be more appropriate. 3) Time considerations. We, as school psychologists usually do not have the convenience of visiting with our clients as often as some procedures mandate. Do not attempt procedures you will not have the necessary time to follow through on the intervention.

Monitoring Methods

Connell et al (1967) report that "tics vary in their form and intensity, but unlike many of other psychiatric symptoms, they present a clear phenomenon whose frequency and severity can be objectively assessed." As stated earlier, this examiner suggests multiple baseline data collection prior to diagnosis as well as treatment. Most authors reviewed within this text conducted their baseline data collection seven to ten days prior to instituting treatment. Data was collected daily in virtually all of the studies and reduced after the third week to twice per week through treatment. After treatment, follow-up data is usually collected monthly.

Monitoring by phone was used by many researchers and this also gave them the opportunity to offer support to those carrying out the treatment plan, which in many cases is the parents. This author suggests when parents are selected to collect data at home, that a simple wrist counter be used to record the occurrence of the behavior at home.

Summary

The three tic disorders have been discussed in this chapter as well as the method for differentiating among them. Because tics are overt behaviors, they lend themselves to relatively simple objective assessment, and monitoring by parents. Although this is true, this author did not discover in his search of literature methods for discerning between mild, moderate or severe tics.

Tourette's Syndrome, a far more involved tic disorder with unusual symptomology such as copralalia, and broader body movements like jumping and squatting have also been discussed. As suggested earlier, the school psychologist should contact an agency competent in diagnosing Tourette's Syndrome when dealing with a client at high risk for this diagnosis. There has been some success at controlling the disorder without Halperidol.

Many behavioral approaches to the reduction of tic behavior have been discussed in this chapter and though many have demonstrated success, they all have their advantages as well as there drawbacks. Where positive practice may reduce ticing behavior in a very short period of time, no mention of reduction of facial tics was made in the studies reviewed. Facial tics are the most common childhood tics. Other methods such as time-out and positive reinforcement rely heavily on someone other than the psychologist to carryout the treatment plan and at times, the family dynamics are such that other difficulties need to be addressed prior to carrying out this type of procedure in the home.

All in all there is no one panacea for the reduction of tics in all situations as is the case with our approach to the majority of difficulties children experience. As in other situations, a psychologist is most effective when he has a number of treatment approaches to choose from before trying to impact on the behavior. This author hopes he has been successful in providing the reader with this base to work from when dealing with tics in children.

Reference Note

From: Azrin, N. H., Nunn, R. G., & Frantz, S. D. Habit reversal vs. negative practice: Treatment of nervous tics. *Behavior Therapy*, 1980, *11*, 169-178. Used with permission of the Association for Advancement of Behavior Therapy.

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Depression of Students: A Definition Proposal, Diagnosis and Treatment

Jon A. Ford

Abstract: Depression is a common psychological disorder that has only recently been recognized as a major influence on students' school performance. This chapter demonstrates the power of school psychologists' contributions to its diagnosis and treatment. The literature review and author's personal observations converge into a systematic and cohesive proposal for diagnosis and intervention with depressed students. New light is shed on various conceptual problems such as diverse and contradictory theories, masked depression, adolescent depression, differential diagnosis, and increasingly complex levels of assessment and intervention. This chapter stresses the importance of theoretical and practical rigor in achieving understanding and meaning of depressed students.

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Jon A. Ford

The purpose of this chapter is to present a bit of information about depression in children, its reality, historical antecedents, assessment procedures, and treatment, all within the range and influence of the public school.

Introduction

Background

If this volume were written only ten years ago, a chapter on depression in students would not have been included. It was generally agreed that the dynamics of adult depression generated serious doubt about applying the concept of depression to children (Rie, 1966; Beck, 1967). In other words, depressive disorders were believed to be absent in students because children were thought to lack a well-internalized superego before adolescence.

Makita (1973) in a short discussion on the rarity of depression in children called upon professional mental health workers to stop applying adult diagnostic criteria retrospectively on children, to admit depression is only rarely seen in children, and to get on with the task of studying the so-called "depressive mood" in children according to their developmental levels, independent of adult diagnostic criteria. Fortunately, Makita's urgings were not heeded and the strivings for conceptual clarity continued unabated.

Salient questions began to emerge. How do children express or manifest depression? How pervasive, intense, and long-lasting are these feelings and associated behaviors? Are there subgroups of depressed children within different diagnostic categories? Do they manifest patterns of symptoms differently? Is treatment differentially applicable as well? What predictive influences on adult psychopathology are revealed by depressed children?

To my knowledge the first volume concerning depression in children published in the United States appeared in 1977 and provided a series of papers presented at the Uppsala Conference (Schulterbrandt & Raskin, 1977). Many delightful literature reviews already exist and the reader is referred to those for background (Malmquist, 1971, 1977; Langdell, 1973; Dorpat, 1977; Welner, 1978; Kashani, et al., 1981). In their book Depression in Children and Adolescents, French and Berlin (1979) provide an exhaustive annotated bibliography, with which a familiarity would lend much to anyone wishing to make a thorough study of depression in children.

What is the current status of depression in children? A recent study of 547 referred children aged one to seventeen years old showed that 23% were depressed, a typical incidence figure found in the literature (Pearce, 1977). There are primarily four ways in which the term depression is currently used in the literature: (1) as an active affective state or symptom, (2) as a set of physiological responses, (3) as a clinical syndrome, and (4) as a nosological entity. It is generally thought that depression in children results from the loss either of an object, most often a person, or of a state of well-being accompanied by feelings of diminished self-esteem and hopelessness. The end result of this reaction will depend upon the developmental level at which the loss initially makes it effect felt. Generally, the younger the child, the more serious the consequences. In infancy, loss results in profound disturbances in ego development; during elementary and junior high school, anger and hostility are displayed toward the loved one whom the student feels has deserted or betrayed him; in high school, the more classic adult picture of lowered self-esteem and helplessness develop and are associated with angry and hostile feelings more characteristic of younger children.

Depression in children has been found to be related to conduct problems, anxiety, learning problems, psychosomatic disorders, and perfectionism (Leon, Kendall & Garber, 1980). It is such a ubiquitous phenomenon that even when a child's problems are not primarily associated with depression, depressed mood is almost always discovered. In this sense it can be viewed as one of the universal reaction patterns: Anxiety and depression seem to appear at all ages, with obsessive thought patterns increasing during elementary school, and including paranoid reactions in high school students. Where anxiety is a fearful anticipation of something unpleasant, depression is a response to an unpleasant historical event (cf. Nemiah, 1973, Chap. X, "The Phenomenology of Depression and Grief").

In sum, the goal of this chapter is to chart a course through the misty isles of depression in children, its many and varied effects on school performance, and on assessment techniques and intervention strategies. Depression in children is real, but its recognition among mental health professionals has been slow particularly because of the theoretical problem its reality seemingly poses to psychoanalytically trained psychotherapists--something akin to the historical questions associated with the existence of schizophrenia in children. Like schizophrenia, depression is a reality to children, with all its pain, desperation and loneliness.

Limitations

There are limitations to this chapter. First, it is limited to children and adolescents because they make up student populations. Adolescents present a mixed picture of childlike (often childish) and adultlike (often adult) behavior, thoughts and feelings. The same is true for their expression of depression in school. This should be neither surprising nor confusing. Unlike adults, psychopathological disturbance in children is inextricably intertwined with developmental factors, whether the infant is becoming a child or the adolescent an adult. For those who wish to review the topic of depression and adults, there are comprehensive and contemporary reviews (Schoolar, 1977; Zung, 1975, 1977; Fabry, 1980; Mayer, 1977).

Second, I bring my singular perception to this chapter as a practitioner, researcher, and sometimes theoretician. My strong belief is in developmental contributions to the meaning and coherence of dysfunctional behavior in students. However, the intent of this chapter is to provide exploratory information which will enable the readers to make reasonable choices based on their professional persuasion, and I have attempted to represent different points of view as the scientific and empirical data have generated them.

Third, this chapter is limited by the absence of the study of student suicide. Others are doing this (Slaats, this volume); but of more importance is the fact that students with other types of problems, particularly impulsive and reactive behaviors, make suicide gestures just as depressed children under particularly stressful situations (Group for the Advancement of Psychiatry, 1974). I take the position in this chapter that if suicide threats or attempts do occur in children, they may or may not be the result of depression, and that one cannot assume depression because of suicidal behavior.

And finally, this chapter is limited by time. I have chosen to narrow the literature review to publications occurring since 1970, with certain "classic" exceptions which continue to impact strongly on current trends in the study of childhood depression. European influences and contributions were strong prior to 1970, and a good deal of the rigorous developmental and psychoanalytic detail is missed by being limited to post-1970 literature. However, in the long run restriction to contributions of the past ten years or so will have no significant effect on assessment and intervention with depressed students.[1]

Definitions and Descriptions

In order to proceed it is advantageous to examine incidence rates, various definitions, theoretical statements, school influences, the notion of "masking", all as they relate to depression in students.

Incidence. Estimating the prevalence of depression among children varies according to diagnostic criteria. On the one hand, in a review of 1,788 children evaluated in the outpatient psychiatric clinic at the University of Michigan Medical Center, only 14 were said to be overtly depressed: i.e., less than 1% (Poznanski & Zrull, 1970). Studying 10 and 11 year old children, Rutter (1966) found only one or two per 1000 on the Isle of Wight. Mosse (1974) reported 49 children suffering from severe depression among approximately 700 she has managed psychotherapeutically since 1946. Fifty-eight percent of 210 preschool children seen in a child psychiatric department were rated as depressed (defined as "excessive weepiness and persistent misery") by Frommer, et al. (1972). Among children with school and behavior problems Weinberg et al. (1973) found depression to be present in 65.6% (45 of 72).

In his discussion of Gittelman-Klein's paper on definitional issues, Lefkowitz (1977) presents two epidemeological studies of deviate behavior in children, and concludes that "approximately 20% of the general childhood population has been reliably judged to possess the symptoms of depressive disorder observed in clinical samples". From these studies it can be concluded that the frequency of depression in children has been estimated to be as low as less than 1% to as high as almost 70%, depending on the particular criteria used and the absence of a clear distinction between "unhappiness" and "depression".

Definition. Attempts to define depression in children have been fraught with ambiguity. As a matter of fact, obtruse clarity and definitive generalization pervade nosological attempts. There has been emphasis placed on distinguishing depression as a symptom, like dysphoric mood, from depression as a syndrome, with accompanying cognitive and psychomotor manifestations, from depression as a disorder, with characteristic clinical picture, history, and hereditary correlates (Carlson & Cantwell, 1980). Wolman (1978) has likened depression in emotional problems to a fever in physical illness because they both act as a catch-all, both being a symptom of many disorders. Further, he stresses the cause of depression as the fundamental issue, since it is that precise cause that usually determines its course: e.g., a manic-depressive type usually self terminates, while schizophrenic depression can go on forever with only brief "remissions." Clearly, treatment techniques must differ depending on etiology (Krauss & Krauss, 1977).

Birleson (1981) distinguishes depression in children (1) as temporary grief reactions, (2) as the manifestation of chronic personality traits, (3) as normal mood states, and (4) as a demoralizing syndrome, which may be conceptualized as a "normal" secondary reaction to failure experiences. In this sense, he postulates a continuum from normality to depressive disorder with demoralizaton lying in an intermediate position. In her book on depression, Edith Jacobson writes in much more detail about the continuum notion but focuses on adult manifestations and their childhood antecedents and not at all on childhood depression (Jacobson, 1971).

Kovacs and Beck (1977) have summarized those symptom formats most often agreed upon:

(1) dysphoria as sadness and unhappiness, irritability and weepiness

(2) low self-esteem, self-depreciation, hopelessness, suicidal ideation, morbidness, recent poor school performances and disturbed concentration

(3) diminished psychomotor behavior, social withdrawal and increased aggressiveness

(4) fatigue, sleeping problems, enuresis and encopresis, weight loss or anorexia and somatic complaints.

The symptom route to definition has a large number of possible escape routes for depressed feelings in students, any one or combination of which can also be manifested independently of depressed feelings. Not only that, but even if they are a direct expression of depression, many of the symptoms are normal, neither pathological nor dysfunctional, but rather are acting to bring a dysfunctional emotional situation back into balance, to create homeostasis, an equilibrium, a restoration, a reaction of growth.

In attempting to suggest a solution to these diagnostic problems Brumback and Weinberg (1977) devised a list of behavioral criteria which they indicate "must represent a change from the child's 'usual' self and be present for at least one month" (p. 912). Further, their criteria attempt to account for research that suggests that diagnostic criteria for childhood depression may need to include additional symptoms because of developmental factors (Leon, Kendall & Garber, 1980), since the classic and obvious symptoms of depression occur infrequently in children (Mosse, 1974). Brumback and Weinberg indicate that in order to establish a diagnosis of childhood depression, it is sufficient for the student to manifest two major symptoms and any two of the following eight minor criteria.

A. Major Symptoms (both must be present)

1. Dysphoric mood

2. Self-deprecating ideation

B. Minor Symptoms (two must be present)

-Behavorial state

1. Agitation

2. Loss of energy

-Social Performance

3. Reduced socialization

4. Altered school performance

5. Altered school attitude

-Vegetative Functions

6. Sleep disturbance

7. Appetite disturbance

8. Somatic complaints

Using these criteria Weinberg diagnosed as depressed 63% of children who were referred to an educational diagnostic center for learning or behavior problems. Unfortunately, this incidence rate is so high that it raises serious questions regarding its validity (Welner, 1978).

In studies specifically designed to respond to questions of definition, antecedent conditions, and prognosis, Pearce (1974; 1977) concluded that a reasonable definition of depressive disorder is as follows:

(1) The association of depression, sadness, unhappiness, misery or tearfulness with at least two of the following symptoms.

-anxiety
-sleep disturbance
-irritability
-suicidal thought
-eating disturbance

- school refusal
- phobias
- alimentary disorders
- obsessions
- hypochondriasis

(2) The lowered mood should be present for at least four weeks and represent a change from normality.

(3) The symptom must be severe enough to interfere with the child's everyday social and/or cognitive functioning (p. 79-80).

Using these criteria, 15-20% of children referred for psychiatric help can be expected to have a depressive disorder.

We come now to the point in this section for which we have been waiting. To "The Land of DSM-III!".[2] The aura is upon us. Its green cover radiates round about us. We are afraid. Alas, help comes by the dozens, chariots in the form of casebooks, workshops by those who know and understand. "Tell us, oh DSM-III, what of childhood depression? How can it be seen? How can we reach out to it? By what staff shall we measure it? We place before you a box, so large that it may hold all you have to reveal, so small that it may be said with wisdom. We beseech you to fill our box with understanding, and for that, oh DSM-III, we will revere your sayings throughout the land."

DSM-III SPEAKS

That's right, DSM-III views depression in children and adults as essentially the same and provides no recognition of childhood depression. Its attempt to address children's depression is weak with a sentence or two describing "age-specific associated features" of prepubertal children and adolescents. The elementary school-age child may experience separation anxiety or refuse to go to school, it says, while adolescents may manifest negativistic behavior, social problems, school difficulties, slovenly appearance, and substance abuse (p. 211-212).

The single instance of depression in children presented by Spitzer, et al. (1981) in their DSM-III Casebook: A Learning Companion to DSM-III, a book also published by the American Psychiatric Association, is identical with that seen in adults, although the case involves a 9-year-old boy. The implication is clear; children experiencing pain associated with depressed feelings must express them as do adults, regardless of their affective and cognitive developmental limitations, or the depression is not recognized.

Schacht and Nathan (1977) strongly criticized DSM-III because its developers inject self-serving, partisan elements which reflect exclusively a medical model for all psychological and behavioral dysfunctions and which thus only help the psychiatry guild in the economic arena of clinical practice. Nathan has served as a member of a three-person committee of the American

Psychological Association which had liaison with the DSM-III committee of the American Psychiatric Association, and you are encouraged to peruse their article with an eye for a firsthand account of the types of political issues which vailed the development of this useful, albeit territorial, document.

Refusing to acknowledge that depression exists as a unique and harmful affective disorder in children suggests an exceptional lack of candor. The very powerful relationship between hyperactivity and depression is an excellent example of the damage that can be done by failing to recognize depression in children. Where Leon, Kendall, and Garber (1980) found hyperactivity normally distributed across depression in a normal sample of 138 children, Brumback and Weinberg (1977) found 63% of their 136 depressed children were hyperactive, and Staton and Brumback (1981) found 59% of the depressed children had motor hyperactivity. These findings suggest that although DSM-III contends that hyperactivity is a specific disease entity, it is much more correct to view hyperactivity as a symptom of various psychological disorders, including childhood depression. Thus, students manifesting their depression in terms of motor activity will be diagnosed by DSM-III users as students with "Attention Deficit Disorder, With Hyperactivity" (p. 41-44), and inappropriate intervention will consequently be recommended.

There have been some rigorous attempts to introduce a classification of depression in children (e.g., Cytryn & McKnew, 1972; Kohn & Rosman, 1973; McConville, Boag & Purohit, 1973; Group for the Advancement of Psychiatry, 1974). These efforts have been, however, either circular by indicating that depression as a disturbance in affective behavior is manifested by depressive symptoms, or they have been a compilation of descriptive behavioral statements associated with withdrawal, provocative behavior, tendencies toward passivity and obsessive-compulsive behavior. The problem with this type of reasoning is that it simply doesn't make sense. The logical error of circular reasoning technique is obvious, regardless of the mental manipulations involved. Using behavioral descriptors is misleading because a diagnostician is just as apt to find, for example, withdrawn students without depressive affect as well as jubilance among depressed students. Almost any aberrant behavior can be added to a depressed child's quiver only to be drawn out, put to the bowstring and released. Unless something more than behavioral descriptors is present, we have no way of knowing if the child is maximizing his potential for assimilating and accommodating his feelings or whether he is building increased barriers to intra- and inter-personal adaptations.

Depression of Students: A Proposed Solution.

In order to sort out diagnostic treatment differences, there is a compelling need to include in the definition of depression not only behaviors but also underlying motivational structures as they relate to the development of children.

Perceived Loss. The postulate that depression follows the loss of a significant love object, whether the loss is experienced in reality or fantasy is a fairly common notion, but one inextricably intertwined with antecedent events, namely perceived loss. Bibring (1953) has taken this a step further by linking loss and depression to self-esteem ego apparatuses. "Depression can be defined as the emotional expression of a state of helplessness and powerlessness of the ego, irrespective of what may have caused the breakdown of the mechanism which established his self-esteem."

Developmental Maturity. The realities of human growth and development insist on including the developmental capabilities of a student to react to loss. Historically, it has been argued that, until adolescence, children cannot be depressed because they are incapable of introjecting the lost object and directing anger toward themselves, rather than the lost object. Those who hold this opinion are actually saying that children cannot experience loss as do adults, a quite believable argument, but they take this to the limit by arguing that because children cannot experience loss similarly to adults, they cannot experience loss per se, a downright incredulous position.

An adolescent reacts to loss much differently than a 2-year-old. For example, if a prized possession, an adolescent's automobile and a 2-year-old's toy duck are both destroyed in accidents, the adolescent because of his developmental nature, may "die" right along with his car, being left in a disheveled depressive condition for a considerable time, while the 2 year old quickly moves to another toy with little behavioral effect. On the other hand, if both lose their mother, the 2 year old is much more likely to experience the loss as trauma than the adolescent. In the first instance when both lost a toy, the absence of cognitive complexity left the 2 year old relatively untouched, while a very complex, but not very well integrated, defensive structure left the adolescent in a heap (pun intended). In the second instance, where both mothers were lost, it was precisely that same developmental capability, cognitive complexity, that resulted in the 2 year old with little cognitive complexity being much more apt to be influenced than the adolescent, who is much more cognitively complex with a greater number of defensive capabilities.

Further, their respective developmental capabilities would disallow similar behavioral expression of each youngster's perceived loss. Increased cognitive complexity allows the adolescent to express any behavior available to the 2 year old, but the 2 year old can behave only as a 1 or 2 year old, not as a 5 year old or an adolescent. A 2 year old's reactions might be expected to be more associated with the body: lethargy, hyperactivity, weight loss, sleep problems. From the adolescent similar somatic reactions might be expected, but also weepiness, hopelessness, delinquency, self-depreciation, all requiring relatively sophisticated intrapsychic adaptive skills.

Emotional Adaptation. A third variable necessary to understanding depression in students is their emotional history, manifesting itself in terms of the relative presence or absence of adaptive and relatable emotional functions. In the example above relative normality of emotional adaptation up to the time of loss was assumed. In this sense, both youngsters experienced what some call "grief," what I call "short-term depression." The case would be different if the 2 year old had been battered most of his short life or the adolescent had already experienced repeated losses such as divorce, new schools, a number of new towns, perhaps two or three counselors. Not only does this emotional history impair currently existing adaptive capabilities for these youngsters, but it also greatly constricts their behavioral expression, thus limiting their ability to cope with the present loss, and sandbagging any possibility of increased adaptation to future losses.

Under the circumstances there is a cycle which perpetuates itself in terms of losses, decreased adaptability, dysfunctional reactions, further losses, and so on. By the time youngsters like these are referred to a psychologist in the schools, they are well into this cycle, which can be a little depressing to a psychologist, even one cognizant of the tremendous change capabilities of even the most disturbed youngsters, given appropriate intervention.

Summary. When these observations are summarized into a functional definition, depression in students is defined as a constellation of emotional, cognitive and behavioral reactions to perceived loss. It is expressed as a direct function of loss perception, cognitive and ego developmental maturity, and levels of emotional adaptation. Symbolically, it can be written as follows:

$$D_s = f\,(L, A, M, B), \text{ where}$$

D_s = student depression

L = perceived loss

A = emotional adaptation levels

M = cognitive and ego developmental maturity levels

B = available behavioral repertoire

These variables may exist independently, but it is their unique inter-relatedness that creates depression in students. Depression is made up of its separate parts, but it is more than its parts. It is like a tree blowing in the wind, constant but ever changing. The tree can be described in terms of its leaves, bark, color, width, height, shape. The age of the tree, its particular strengths, its vulnerabilities according to how it is growing compared to other similar types of trees can be discussed, and its root system, photosynthetic processes, and other self-sustaining activities can be described. It is also possible to note, after closer inspection, the evidence of good years, times of stress and disease, a year of drought, and healing and surging forth.

There are many ways to look at the same tree, each vital to understanding, each unique, but each incomplete. The more that is known and understood of the tree, the more appreciation grows for its ability to withstand the wind, and the better the support that can be provided the tree to continue its growth.

Implications for Understanding. The analogy of the tree teaches two lessons: (1) that there are varying levels of understanding and (2) that the whole is greater than the sum of its parts. Neither lesson is unique, neither novel; both, however, are often overlooked with chaotic and negative consequences for depressed students.

It should be obvious that different levels of inference exist for examining depression. The first of these depends only upon intact senses and the ability to associate observations with "adult-type" depressive manifestations, such as crying and lethargy. There are many possible motives for crying or lethargy as there are for many other behaviors, such as fighting or school avoidance, which may be as much or more of an expression of depression in a student. It is no more to be expected that classroom teachers, however acute their senses and teaching abilities, would know whether a student is depressed than it would be expected that the man-on-the-street would know the general growth capabilities of a tree.

Many psychologists, trained as they are in the behavioral sciences, are not entirely able to apply their skills to the recognition and treatment of depression: Hence the need for a chapter such as this. It is understanding that brings closure which is adaptive and facilitates professional growth. In the section to follow I have made specific choices which are designed to lead through various levels of understanding, from biophysical to dynamic, behavioral to cognitive, static to interactional, conscious to unconscious. Enough references are provided for exploration of those great thinkers, researchers, and clinicians who are increasing the understanding of the pain associated with depression in students.

Conceptual Models of Childhood Depression

Background. Once the existence of depression in children and its definition as a fourfold function has been accepted, there enters another area of potential debate--causation. This issue at one time reached mammoth proportions with the biological hypothesis supporters on one side of the debate (e.g., Mayer-Gross, Slater & Roth, 1968) and psychological proponents on the other (e.g., Menninger, 1963). There are still some die-hards in the debate, but recent outcome studies have rendered the controversy somewhat impotent by distinguishing between short-term relief under crisis conditions and long-term personality adjustment (i.e., crisis management vs. secondary prevention) (Davidson, 1976).

Until recently, not many have devoted themselves to translating etiological data into concepts which may be useful for understanding the origin of depression in students. Rather than make etiology of childhood depression another of the great debates, I prefer to proceed, recognizing the relative contribution of different etiological positions, while at the same time noting that our definition, $D_\delta = f\ (L,A,M,B)$, is not functionally reflective of any particular model but rather allows for assimilation of varying perspectives while accommodating differences.

In an overview which urged the divergent study of depression in children, Kashani, et al. (1981) summarized the major conceptual models for adults and reviewed them and their applications as they relate to children. The models included: biochemical, genetic, learned helplessness, life stress, behavioral reinforcement, cognitive distortion, and sociological. This summary is well worth the reading for those interested in a concise overview of different perspectives of adult depression. In my mind, however, the authors had very little to work with in their downward extension into childhood, and most of their review focused on literature on adult depression.

A review is provided by McLean (1976), who not only describes various behavioral models but also offers status reports, a timely addition to a more well developed area of emotional disturbance. The review is limited by design, however, as it considers only adult behavioral models: (1) reinforcement theory, (2) cognitive distortion, (3) life-stress events, (4) interpersonal disturbances, (5) learned helplessness, and (6) variable causes.

The major conceptual models in the literature and examined here include:

Organic and Genetic Contributions
Behavioral and Cognitive-Behavioral Contributions
Psychodynamic Contributions
Family Contributions

Organic and Genetic Contributions. Evidence for organic and genetic contributions comes from sources focusing on manic-depressive disturbances in children, biochemical analyses, related family factors, and drug effects. A clearly genetic component to manic-depression has been established with adults (Poznanski, 1979), but the case for the existence of manic-depression in children is limited to only two single-case studies, both girls, one a 3 1/2 year old (Feinstein and Wolpert, 1973) and the other an 11 year old (McHarg, 1954). Given this inadequate empirical base, it is much too early to begin postulating existence of manic-depression in children, even more fetching to attempt any genetic links.

The same may be said for biochemical analyses, currently focusing on the biogenic amine of norepinephrine and serotonin. These neurotransmitters naturally occur in the brain cells and are measured directly through the cerebral spinal fluid and indirectly in urine specimens (Davis, 1977). Fabray (1980) and McGeer and McGeer (1980) discuss the technical aspects of the biochemical contribution of these substances to depressive mood with adults but, as far as I know, nothing has yet been done with children. The only research which can be remotely associated with the physical status of the child as relating to depression involves tissue studies rather than biochemical analysis. Brain tumors, for example, are frequently followed by depressive mood because of increased intracranial and specific focalized destruction (Vranjesevic, et al. 1972).

Along the same lines, the differential selectivity of drug treatment for depression in adults suggests organic contributions; however, similar studies do not exist for children. In adults, it has been demonstrated that depressives showing low pretreatment levels of noradrenaline respond better to noradrenaline uptake inhibitors, such as desipramine and nortryptyline, than to serotonergic uptake inhibitors, such as imipramine and amitryptyline (van Pragg, 1977; Cowdry & Goodwin, 1978; Moskovitz & Klawans, 1977). It is also commonly believed that amphetamines, which are primarily dopamine releasers, are relatively ineffective for treating depressive illnesses, while tricyclics, which enhance noradrenergic of serotonergic action, are often effective.

There is, however, a heretofore not generally recognized problem with extending the use of amphetamines to children. If children with hyperactive behavior are treated with stimulants when the behavior is, in fact, a mask for depression, deceptive and confusing results occur, often resulting in exascerbated symptoms as depression is overlooked. This will be further amplified later when treatment is considered.

In an elaborate and well-controlled study of depressed children, Brumback, Dietz-Schmidt, and Weinberg (1977) argue that the higher incidence of positive family history for affective disorder in their depressed children, 89%, than in adults, 34%, may indicate that a larger genetic predisposition is necessary for primary depression to manifest itself first during childhood. However, the significance of parental depression relative to depression in children is unclear. It could be just as easily argued that parental depression facilitates childhood depression by a psychodynamic mechanism, such as parental identification (Poznanski, 1979). Behavioral genetic research continues to provide evidence for hereditary contributions to affective disorder, but the work is new and definitive results have failed to crystalize (Broadhurst, Fulker, & Wilcock, 1974).

Behavioral and Cognitive-Behavioral Contributions. Depression in children can be viewed from a behavioral and cognitive-behavioral perspective. An extremely interesting study in change occurs when the behavioral roots of depression in the literature over the last ten years is traced beginning with Ferster's (1973) "functional analysis of depression," which quite adequately identifies classes of prominent missing behavior in depression, such as missing social reinforcers or an incomplete view of the environment. The state of behavioral approach has changed considerably as is seen in John Rush's recent book on depression (Rush, 1982). He identifies "schemas" as attitudes developing from self and environmental interactions, facilitating or hampering psychological functions, and maintained through day-to-day reinforcements. The 1973 and present day contrast is most significantly noted as he indicates that "these attributes are the basis for life-long silent assumptions that remain unquestioned and largely outside of awareness (underlining emphasis mine)" (p. 162). This is a far cry from Ferster's functional components of depression, and, in my mind, needs only a recognition and conceptualization of "functional representations" (my terms) of these concepts in order to be structurally similar to the psychodynamic constructs of "unconscious" and "symbolic" awareness.

This development can be exciting over the next few years as it relates to depression in children. Regardless of the outcome, cognitive behavior therapy has contributed much to our understanding of depression in children. It has shown that a depressed person's inappropriate activity results in greatly limited reinforcements, social or otherwise, and that no reinforcers result in a limited and unchanging world view (Ferster, 1973; Beck & Shaw, 1977). Cognitive behavior therapy has viewed depression as a direct consequence of significant events outside a youngster's control, resulting in learned helplessness (Hannum, Rossellini & Seligman, 1976), in perceiving oneself as a loser so that a state of environmental helplessness is no longer needed (Beck, 1961; with Shaw, 1977), and in low estimates of one's own power (Wolman, 1978).

Cognitive behavior theory in the mid 1960's held that two conditions must present themselves prior to the onset of depression: (1) an unattainable ideal state, and (2) an attitude of helplessness (Sandler & Joffe, 1965). It has continued to provide unifying conceptual strategies, increasingly more elaborate and empirically useful. McClean (1976) reported that, over a period of time, frustration gives rise to beliefs of little control, resulting in anticipated failure and depressive symptoms. He adds that there are three processes needed to maintain depression: (1) increased negative thoughts; (2) avoidance of social interaction; and (3) absence of social reinforcers. The flurry of definitions examined in the previous section, and many objective scoring systems for depressive symptoms, have taken their lead from cognitive behavioral theory.

Psychodynamic Contributions. Where cognitive behavior theory has provided recognition of the contribution of consciously available thoughts to the behavioral component of depression, psychodynamic theory highlights emotional predispositions, defensive structures, and other adaptive mechanisms which are primarily unconscious and contribute as much or more to behavioral expression.

Rene Spitz's papers on childhood depression are well known (Spitz, 1945; 1946). It is common to find psychologists who recall Spitz's work in terms of hospitalized infants exhibiting physiognomic expression similar to adult depressives. It is less common for those same psychologists to have read his classic argument of just how this could occur. Spitz referred to Abraham's 1912 paper which postulated a dynamic mechanism in depression and to Freud's 1917 Mourning and Melancholia in his development and theoretical extention to infants. The core of Spitz's argument is, "In the infant the superego is absent, so that it is impossible to assume destructive hostility of the superego [as required by Abraham and Freud]. However, the loss of the love object in itself is equivalent to a hostile deprivation for the infant. . ." (Spitz, 1946; p. 333). The differences lie in the person's representational system: for the adult the source of threat is an intrapsychic representation; for the child that threat is a living original of the later intrapsychic representation.

This interesting argument did not go unchallenged (Pinneau, 1955; Rie, 1966; and Benedek, 1975). In summary, these authors essentially argue that the psychoanalytic structure position (id, ego, superego) excludes the possibility of depression in children.

The entry of "ego psychology" (e.g., Erickson, A. Freud, Loevinger), casts a new light on the problem. If the ego alone is capable of experiencing affective states, as the ego psychologists propose, then depression must be redefined and childhood depression reconsidered. French (1979), in his development of the whole notion of depression in children, reports that ego psychology changed the boundary conditions in such a way that childhood depression is not excluded. The challenge then becomes "to develop the laws of ego function, in order to determine the conditions under which depression will occur" (p. 22). Researchers and theorists have done just that.

Recent empirical data has reinforced Bibring's hypothesis which viewed depression as an ego state, an emotion independent of the aggressive drive (Bibring, 1961). Accordingly when the ego is aware of its goal and yet unable to attain it, depression ensues, irrespective of what may have caused the breakdown of the self-esteem mechanisms. Mahler (1961) supports Bibring's hypothesis, arguing that "in infancy and childhood grief as a basic ego reaction does prevail even though... the immature personality of the infant or older child is not capable of producing a state of depression such as that seen in the adult" (p. 332). Five years later she pointed out that the depletion of basic trust, resulting from a "relatively great and sudden sense of helplessness" which underlies the depression response can occur "even before super-ego precursors are consolidated into a super-ego structure" (Mahler, 1966).

Taking this further Bowlby (1973) describes predictable reactions of a child confronted with the inaccessibility of his principle attachment figure, parent, teacher, counselor, etc., because of physical or emotional separations. These include (1) protest accompanied by attempts to recover the lost figure, (2) despair accompanied by preoccupations with the figure and waiting vigilantly for their return, and (3) detachment when the child becomes emotionally uninterested in them as a defense against painful feelings (Philips, 1979).

Greater dangers lurk below the surface of these predictable reactions to loss. When depressive moods of the primary attachment figure are present, there is a tendency to depression that is internalized by the child although perhaps not manifested until years later. Anna Freud spoke of these in terms of the child achieving his sense of "unity and harmony with the depressed mother not by means of their developmental achievements but by producing the mother's mood in themselves" (p. 87) (A. Freud, 1965).

Sidney Blatt (1974) has set out a useful way to categorize adolescent depression on the basis of object representation. "Anaclitic" depression, or the loss of the need fulfilling object or the self-object, is one type. The second type, "introjective" depression, is characterized by much guilt and moral masochism with continual negative self-judgments. In anaclitic depression fear of the loss of the object is vital; in introjective depression fear of losing the object's love is critical (Kaufman, 1979).

In 1974 James Toolan outlined a useful transformation of the behavioral manifestations from infancy through adolescence. He says that the younger the child the more serious the depression, with grave consequences for ego development when the depression occurs in infancy; specifically, ego development is profoundly disturbed, regression takes place, intellectual potential is hampered, and there is an impairment of the person's ability to identify with significant figures during life. A loss of a love object during the elementary or junior high years results in the student often reacting with anger toward the one whom he feels deserted and betrayed him, in this way avoiding painful feelings of hopelessness and helplessness. Delinquent behavior may also result, furthering the distance between the youngster and significant adults so desperately needed for support. Toolan goes on to say that the 6 to 13 year old may instead inhibit the expression of anger, hoping that his parents will once again support him if he is "good." This effectively turns the anger inward causing a youngster's self-evaluation to become negative and him to see himself as "bad" and then to behave according to his self-perceptions, with undesirable consequences which simply reinforce his notion of "badness."

Up to 13 or 14 years of age, the student's ego defense mechanism include primarily denial, repression and projection. In early adolescence displacement onto somatic symptoms is often resorted to, and occasionally a reaction formation will be seen. This understanding is important in order to follow Toolan's explanation of what occurs during object loss for a high school student. He tells us that the adolescent's more sophisticated ego apparatus tests reality aspects of situations quite well and denial can no longer be used as a defense. Because the adolescent is able to recognize his parents' contribution to the object loss and his own hostility toward them, his guilt feelings increase. As guilt feelings develop the adolescent becomes less able to express anger directly toward his parents, and turns his hostility toward parental introjections within himself. The result is helplessness, lowered self-esteem, and a picture very much like that usually portrayed for adult depressives. Toolan reminds us too that the normal reactivation of the Oedipus complex causes a definite sense of loss at this age, which may be exacerbated by feelings of loss from an earlier age.

With Toolan having set the theoretical stage, depression can be looked at in terms of the definition, $D_S = f(L,A,M,B)$, as a developmental phenomenon as it relates to students. Depression in children has profound effects on personality development, language and intelligence, and adult predispositions to depression (Boverman & French, 1979; Meierhofer, 1972; Hannum, Rosellini, & Seligman, 1976). Any psychological examination of students who have problems in school would be remiss if it did not take into account the developmental level of the child, whether a preschool, elementary or adolescent student, with differing cognitive and social skills. Putative "symptoms" of depression seem to be short-lived, and if they do seem to describe a condition of depression at one age, they very likely dissipate with the passage of time (Achenbach & Edelbrock, 1979; Lefkowitz & Burton, 1978; Lefkowitz, 1980).

In a study of 84 depressed children and adolescents, Ushakov and Girich (1972) found distinct differences between subjects when grouped by age. The four groups were those who were (1) less than 7 years of age, (2) 7 to 10 years of age, (3) 11 to 14 years of age, and (4) 14 to 17 years of age. They found that younger ages tended toward a diffuse symptomatic indistinct picture while increasing age resulted in less divergence and more of a tendency toward the basic adult picture. Using Piagetian and Eriksonian parallels, Philips (1979) discussed childhood depression in terms of developmental consequences as they relate to the mode of depression, presenting behavior and critically relevant life events.

Family Contributions. The effect of the family on depression in children is important to a number of social systems observers. Most obvious are the relationships which emerge between parents and children when child abuse occurs, an interaction which is well outlined by Bible and French (1979) and Friedrich and Boriskin (1976). In these cases, depression is rarely accompanied by depressive affect, either observed or reported, but there is a perception that the self-environment relationship is hopeless and that the student is helpless to change anything.

Winokur (1977) indicates that the relationship between early onset of depression in females and the presence of alcoholism or antisocial personality in a first-degree relative suggests the importance of familial contributions. Poznanski and Zrull (1970) reported a high incidence of depression in the parents of overtly depressed students. Although the genetic link may be present, there are also the very real object losses experienced by, for example, a preadolescent youngster in need of firmness and encouraging support in his search for autonomy, exploration and learning. The youngster obtains from a depressed parent, rather, no consistent limits and no clarity of meaning with respect to this search. It is not long before the youngster feels helpless against his aggressive drives and is without hope of resolution.

As these attitudes begin to crystallize for the preadolescent, Lazarus (1977) indicates that the student develops a negative view of self, world and future. Summarizing a series of studies done by Aaron Beck in the early 1960's, Lazarus goes on to describe that the student may tend to greatly exaggerate or overgeneralize any event that in any way can be interpreted as negative information about himself. Not only does he exaggerate and overgeneralize, but the preadolescent perseverates on it so that the future holds no promise of resolution. What a predicament -- a systematic bias built into an intergenerational pattern which has a sole purpose of distorting cognition and highlighting negative self-data.

Summary. In sum, there are a number of conceptual models which may be accommodated by the definition, $D_\delta = f(L,A,M,B)$: genetic or biochemical, behavioral, psychodynamic and social systems, particularly of the family. The first and last of these, genetic and familial, may be viewed as potential contributors to the development of depression in children. They do not, however, provide knowledge about depression per se, and until researchers and theoreticians indicate that depression has a consistent, predictable and ubiquitous effect on biochemical functions and social systems, these "causative" factors should be viewed in terms of their potential to influence development in, rather than their power to define, depression in children.

It is from behavioral and psychodynamic constructs that our definitive descriptors of depression emerge. The highest level of understanding of depression in students comes from an integration of behavioral and psychodynamic observation such that a consistent pattern crystallizes which accounts for all the information. This information includes an awareness of perceived loss (L), levels of emotional adaptation (A), cognitive and ego developmental maturity levels (M), and the available behavioral repertoire (B). Genetic and biochemical influences contribute to the equation at now unknown levels, perhaps catalyzing the reaction.

To illustrate, three very relevant areas will be examined that have some potential for confusion: (1) masked depression, (2) adolescent depression, and (3) the effects of depression on school performance.

Masked Depression

Elaborating on the concept of loss, Sandler and Joffe (1965) point out that while what is lost may be a perceived object, "it may equally well be the loss of a previous state of self" (p. 88). Reviewing what was covered in a previous section, these authors propose two necessary conditions for the development of depression: (1) an unattainable ideal state and (2) an attitude of helplessness in the face of frustrating circumstances.

In line with D_g as it relates to depressive equivalents, Sandler and Joffe discuss "adaptive measures which can be taken in order to prevent either the arousal of depressive affect or its intrusion into consciousness" (p. 88). According to others, these adaptations may take the form of reversal of affect including reaction formation and clowning or excitement rather than despair, and psychosomatic symptoms including psychomotor activity, anti-social behavior, school phobia, anorexia, headache and manic activity (Spiel, 1972; Sornmani & Kupitak, 1972; Toolan, 1974). These reactions are termed "depressive equivalents," behavior not usually associated with depressive mood but quite reflective of depressive mood when examined in terms of *L*, *A*, and *M*.

Kovacs & Beck (1977) and Poznanski (1979) indicate that part of the difficulty with accepting the reality of depressive equivalents is that the behaviors are so diverse as to include most children's problems, regardless of severity level. In my mind, these criticisms are offered because the authors limit their understanding to behavioral reports and fail to note the *L*, *A*, and *M* contributions to depression, a simplifying advantage to test construction but one that results in a dubious lack of understanding of depression in students. Carlson and Cantwell (1980) hypothesize that the mask for "masked" depression (another term for depressive equivalents) is very thin for unsocialized aggression in children, and they conclude that it is essential to go beyond presenting behavior in order for understanding or intervention to occur.

Adolescent Depression

Secondary school students present a mixed depressive picture, some very adult such as crying, moodiness, manic-depressive behaviors, some childlike such as temper tantrums, all quite intense, broadly effective and very painful. Correlation coefficients between depression and self-concept measures for high school students range from .34 to .75 (Battle, 1980). Among adolescent delinquents, 58.3% of 60 subjects were at least somewhat depressed, and about one-third of the 60 were "substantially or predominantly depressed" (Chwast, 1974, p. 229).

Depressive mood has been found to specify patterns of change over a period of time for adolescent drug users, with depressed marijuana users discontinuing their use while depressed multiple users, those using more than one type of illicit drug, tending to be stable users (Paton, Kessler, & Kandal, 1977). This is contrasted to marijuana users as a group tending to be relatively stable users, and multiple drug users tending to be experimental and sporadic. These researchers also report that drug use per se in adolescence "does not seem to lead to an increase in depressive mood" (p. 286).

Adolescent forms of depressive equivalents include automobile accidents, excessive use of alcohol or other drugs, psychosomatic illnesses, delinquency, underachievement, school phobia, fighting and destructive behavior (Lessee, 1974). In an operant mode, Ferster (1973) described adolescent depression as resulting from an inadequate repertoire of functional behaviors. Winnicott (1965) observes that before intimacy is possible, an adolescent must pass through a period of isolation. His implication is simply that groups of adolescents struggle to start over, with attempts to link newly acquired emotional and cognitive developmental skills, often resulting in depressive reactions. Feinstein (1975) discusses the more salient features of normal and abnormal ego developmental contributions to adolescent depressions, their childhood antecedents and relative implications for current "ego-syntonic" adaptations during stress.

In an interesting development, Benjamin Kaufman cites Erickson (1950), Pumpian-Mindlin (1958) and Derdyn and Waters (1977) to point out that treating adolescent depression is particularly difficult for adults because of the adult's own narcissistic injuries when they were adolescents (Kaufmman, 1979). He also reports that intergenerational envy and jealousy keep adults from sensitively considering adolescent depressions, and that what was not provided the adult at an earlier age may not be provided the adolescent.

It is my impression that a direct intervention result which has these adult limitations is the all too common technique of helping adolescent depressives express hostile, angry feelings to the exclusion of helping them express warmth and closeness. Behavioral techniques which focus on eliminating certain depressive symptoms and "venting" techniques designed to "let it out," are, I suspect, often encouraged by adults attempting to contain their own strong feelings about unmet needs to express tender, close feelings. Professionals working with secondary students must be ever alert to their own conflicts, feelings and thoughts while making decisions about these children in the process of becoming adults, particularly with students who are excessively burdened with depression.

Depression and School Performance

Recent studies have demonstrated that depression is an important cause of childhood behavior problems and that diagnosis can often lead to successful treatment (Brumback & Weinberg, 1977). Rouse (1980) hypothesizes that depression is the key to minority underachievement. Where Schmitz (1972) found impaired school performance to be a primary symptom of depression, Carlson and Cantwell (1980) found that impaired school performance does not help to distinguish between students with low self-esteem, anhedonia, somatic complaints, suicidal ideation, anorexia nervosa or hopelessness. The absence of differentiating relationships may be due to the fact that depression was measured using Beck's Children's Depression Inventory (CDI) (Kovacs & Beck, 1977), a measure with serious developmental and psychomotor limitations insofar as it assumes a static adult model by providing 21 questions about the child's mood, vegetative, cognitive and psychomotor functions.

Further, CDI results lead to a high incidence rate among adolescent students. Using seventh and eighth grade students, Kovacs and Beck (1977) found over 50% of the sample having concerns about self-dislike, work difficulties, dissatisfaction and indecisiveness, with between 29% and 49% of the sample having thoughts concerning sense of failure, self-image, guilt, anorexia, social withdrawal, self-harm, pessimism and sadness. These are very high figures coming from very well respected researchers. I believe limitations lie with the CDI and its lack of a developmental perspective, rather than with either the sample population or the technical aspects of this pioneering study.

Friedman and Doyal (1974) discuss sad affect as relatively common in school children, and they report depressive manifestations in one of three forms: acute, chronic and masked. Relationships between depression and school performance have been found by using group administration of a 20-item peer nomination inventory for depression (PNID), a technique requiring children to nominate their peers on stems such as, "Who says they can't do things?"; "Who often looks sad?" The psychometric properties of the PNID are described in Lefkowitz & Tesing, (1980). Tesing, Lefkowitz and Gordon (1980) found significant correlations between depression and reading standard scores (-.23), math standard scores (-.27), teacher rated work/study habits (.27, with positive direction determined by coding, i.e., high = 1; low = 4), teacher rated achievement (.26), figure-drawing IQ (-.10), and locus of control (.19).

The empirical relationship existing between school children, depression and achievement indicates that depression in students has pervasive effects on school performance. It is important that measurement devices related to student depression have considered in detail the behavioral repertoire of the student; however, these devices are ruefully deceptive because they generally consider student depression to be simply a downward extension of adult depression, largely ignoring the developmental capacities and limitations of students. The literature has yet to move toward a more comprehensive view which integrates the notion of loss, adaptation levels and student maturity.

Diagnosis and Assessment Procedures

General Notions

Defining depression in students as a function of perceived loss, emotional adaptation levels, cognitive and ego developmental maturity levels and available behavioral repertoire, introduces a great degree of rigor into the assessment procedure. This results in fewer children being seen as depressed, which is illustrated by studies showing that when student depression is identified by behavior alone approximately 60% of the referrals to school psychologists are identified as depressed; on the other hand, when identification is by syndrome, 49% are identified as depressed, and when by affective considerations, only 27%.

Further, a definition such as $D_s = f(L,A,M,B)$ strongly suggests various levels of diagnostic inference. The first level, behavioral assessment, is dependent only upon the observer's intact senses, functional brain and knowledge of depression.[3] The second level of inference adds cognitive and ego developmental maturity levels to behavioral observations, a relatively simple addition for psychologists who are familiar with the developmental perspectives of Piaget, Freud, and Erickson. The third level, that of emotional adaptation, is not so easily acquired and demands that the psychologist integrate dynamic conceptions of psychopathology, developmental understanding and student behavior. The fourth level of inference, having the most potential to be elusive, brings together the perceptions of loss with dynamic, developmental and behavioral data. In the early stage of depression when the student first protests, the perceived loss is directly available to the student's conscious awareness; but as he feels more helpless and powerless, protests change to despair and despair to detachment as the student adjusts to protect himself from further pain. The loss is then no longer consciously available and the diagnostician must search preconscious and unconscious material for validating derivative and symbollic material through the use of projective tests or by listening for first and second order derivative material during interviews.[4]

The questions which must specifically be answered during the assessment procedure revolve around student intervention. What is the nature of the behaviors for which the student is referred? What is the relevance of the particular behavior for the student? What variables will effect maximum change? What techniques will catalyze change? What objectives are aimed for with this student? How can it be determined whether a goal has been reached? The complexity of assessment with students is interwoven with the intervention process, whether implicitly or explicitly recognized (Rush, 1982).

An immense degree of clarity illuminates the diagnostic picture of depressed students if the diagnostician is on speaking terms with the ego adaptive functions of defense mechanisms. Most commonly depression in adults is rooted in identification, incorporation, turning against the self and repression (Nemiah, 1973). Cytryn and McKnew (1974) proposed three levels of defenses with children: (1) fantasy, wherein the defenses are denial, projection/introjection and splitting; (2) depressive talk, with dissociation of affect and reaction formation as the predominant defenses; and (3) mood and behavior effects, as defenses against depression fail.

Psychologists may be asked to evaluate a student who is anywhere along this continuum. A diagnostic awareness of his defensive capabilities helps focus assessment impressions regarding the student's emotional adaptations, specifically with respect to the defensive repertoire necessary for depression to occur.

According to Cytryn and McKnew the mode of expression reflects the student's developmental stage in terms of the defense mechanisms necessary to cope with the depression. Depressive themes are seen in fantasy, dreams or play content before the student is capable of verbalizing depressive feelings. Verbal expression of depressive feelings such as helplessness and powerlessness (Bibring, 1961) occur at the second level and are most commonly heard in acute depressions of fairly well-adjusted students (Kashani, et al., 1981). When this level fails, depression in students can be observed in such moods and behaviors as psychomotor retardation, crying, and changes in appetite and sleep.

Although Cytryn and McKnew recognize the existence of masked depression, they largely encourage the use of DSM-III classification descriptors, and consequently assume equivalence of adult and childhood depression. It might be well to hold their developmental concepts in mind while at the same time recognizing that their descriptions are applicable with high school students, and that others' conceptional notions must be included in order to assess for depression in younger students or in students whose depression is masked.

Diagnostically, important and relatively constant research generalizations have been found: (1) IQ differences do not exist between normal and depressed students (Leon, Kendall, & Garber, 1980; Moyal, 1980); (2) low self-esteem, external locus of control, helplessness, and an inability to handle interpersonal aggression are positively related to depression in students (Poznanski & Zrull, 1970; Moyal, 1977; Pearce, 1977); (3) depressed children rate themselves relatively well on self-report measures when they do not have significant behavior problems (Carlson & Cantwell, 1980); and (4) although it woud be most advantageous if teachers, in their strategic position, could spot early signs of depression in students, the fact is that teachers are able to identify depressed students only when the behavioral manifestations include inattention, which indicates that depression in students most often is overlooked in the classroom (Leon, Kendall, & Garbor, 1980). This inability of teachers to recognize depression in students is not a professionally singular finding; nurses working in pediatric wards often do not recognize depression in even severely depressed children (Poznanski, Cook, & Carroll, 1979). These findings all point to the importance of using multiple sources of information in the diagnostic procedure: direct and indirect, objective and projective.

Assessment Techniques

It is not how much or the type of testing that is done that ultimately adds coherence and understanding to a child's emotional problems. It is the psychological consistency and quality of synthesis which ultimately results in psychological meaning. The psychological perspective is the functional component in the diagnosis and treatment of depression in students in terms of integrating student behavior, maturity, perceptions of loss, and emotional adaptations. Measurement of these functions rests with psychological tools designed to assess the student himself or indirectly by sampling the opinion and perspective of persons who know the student, and with objective and projective tests.

Actual student behavior can be assessed in a variety of ways. To recapitulate, behavior associated with, but not limited to, depression in children includes: withdrawal, underachievement, physical illness, accidents, running away, poor school performance, clowning, reading and other types of interpersonal communicative problems, and a variety of behaviors associated with rule violations in the home, school or community. Two characteristic symptoms of depression, dysphoria and self-depreciation, are accessible to the examiner by student comments: "I'm dumb, ugly, stupid," "I wish I were dead," "I don't have any friends." The speech of depressed students is sprinkled with words or meanings that denote loneliness, agony, darkness, gloom, despair, apathy, hopelessness, hell, sinfulness, deadness or aridity. The primary datum of behavioral observation is frequency (Ferster, 1973), and the diagnostician must inevitably answer questions about predominant rather than casual behavioral themes.

Assessment data concerned with the child's thoughts about himself and his environment as they relate to depressive mood is the next level of assessment and is most easily gathered by tests having their roots in cognitive-behavioral techniques. These assessment techniques can be divided into two broad categories: (1) self-report measures, and (2) interviewer or observer ratings. They distinguish themselves from each other simply by who does the rating, the student or someone else. Mayer (1977) discusses self-report inventories, adjective checklists, and behavioral techniques for assessing depression in adults; and a reading of her chapter provides a comprehensive picture of most of the techniques that have been used with students because, without exception, childhood depression scales are simply modifications of adult measures.

There are no widely used validated scales for childhood depression. Petti (1978) recently reviewed the use of rating scales for children. Experiments with correlating children's behavior, school performance, and cognitive styles has included the use of the Depression Scale of the Personality Inventory for Children (PIC) (Leon, Kendall, & Garbor, 1980)[5]; Beck Depressive Inventory (BDI) with adolescents (Strober, Green & Carlson, 1981)[5]; Child Depression Inventory (CDI), a self-report version for children of the BDI (Leon, Kendall, & Garbor, 1980)[5]; life-stress checklist (Coddington, 1972)[5]; and the Children's Affective Rating Scale (CARS), a version of the Hamilton Rating Scale for measuring adult depression. (Poznanski, Cook, & Carroll, 1979)[5].

These tests represent the existing market and, along with a more recently devised instrument, the Children's Depression Rating Scale, will be described below:

1. Depression Scale of the PIC (Wirt, Lachar, Klinedienst, and Seat, 1977), consists of 46 items judged by "practicing clinical psychologists" to reflect depression as defined by the Group for the Advancement of Psychiatry (1966) The scale was validated on children with a primary diagnosis of depression, and later validation studies were provided by DeHorn, Lachar, and Gdowski (1979) and Lachar and Gdowski (1979). Factor analysis of the scale indicated that 10 factors accounted for 98% of the common variance: brooding and moodiness, social isolation, crying spells, lack of energy, pessimism and anhedonia, concern with death and separation, serious attitude, sensitivity to criticism, indecisiveness and poor self concept, and uncommunicativeness. T-score conversion tables are available for sex and age.

2. The Child Depression Inventory (Kovacs and Beck, 1977) is modeled after the Beck Depression Inventory for adults (Beck, 1967; 1972). It is a 21-item, forced-choice, self-report inventory and was tested on 8 to 13 year old children with a normal control and a psychiatric inpatient sample. Nineteen to 50% of 39 inpatients had mild or moderate to severe depressions. The most frequently rated symptoms in the groups were sadness/crying, decreased motivation, depressed demeanor, and decreased sleep and appetite. There were also infrequent occurrences of self-depreciation, hopelessness, pessimism, psychomotor retardation and unproductive speech.

3. A Life Stress Checklist for Children (Coddington, 1977) was modified from an earlier adult version (Holmes and Rahe, 1967). Crook and Raskin (1975) found that a history of childhood parental loss was not associated with depression but that marital discord and intentional separation of a parent and child were significantly related to attempted suicide in adult life. The Life Stress Checklist, therefore, may be helpful in suggesting potential problems associated

with marital discord and family psychopathology, but it is only suggestive, not descriptive, in its relationship to depression in children.

4. The Children's Affective Rating Scale (McKnew, et al., 1977) is a 27-item, indirect symptom checklist including items such as sad mood, dejection, crying, and sad posture. The rater grades on a scale of 0 to 9. In this study the range was quite narrow: Above 50 rated as severe, 40 to 50 as moderate, and below 40 as none to mild.

5. The Children's Depression Rating Scale (Poznanski, Cook, and Carroll, 1979) is an interesting "attempt to take into account the developmental level of the child" (p. 442). They chose children between 6 and 12 years of age for study because the group represented a "practical" group rather than a particularly relevant developmental level. The scale was designed to be used in the same way as the Hamilton Depression Rating Scale for adults (Hamilton, 1960), thus taking a skilled psychologist's time. There are 33 multiple-item categories with each item contributing 0 to 5 points to the total score, and every item has 2, 3, or 4 subcategories of increasing severity with an operational description of each subcategory. Multiple sources of information can be pooled to rate any particular item. The problem with this study is that although it has tremendous developmental potential, the authors failed to capitalize on this by not only limiting their sample to an academic subgroup classification (elementary school-age) but to children who were hospitalized for rather severe physical problems (e.g., asthma, leukemia, spinal cord tumor, paraplegia).

The five described checklists and rating scales are limited by scant reliability data, poor discriminate validity, limited generalizability, and response bias such as social desirability. Although no response bias relationships have yet been reported for children, adult neurotic depressives tend to exaggerate, while psychotic depressives minimize their symptoms (Paykel, et al., 1973). When teachers, parents, or psychologists do the rating there is the likelihood that theoretical or halo effect biases will intrude. My approach is to gather behavioral data from a variety of sources with an eye for the depressive symptoms as outlined by, but not limited to, the Children's Depression Rating Scale, and the behavioral components of childhood depression as described by Brumback, Dietz-Schmidt, and Weinberg (1977).

The data base for cognitive behavior therapy consists of students' "automatic thoughts," images, feelings and wishes (Shaw & Beck, 1977). It is gathered from oral reports from the student during counseling or therapy and from student introspective material. Shaw and Beck indicate that the data can be organized at three levels of abstraction: (1) the student's general idea (e.g., "kids don't like me"); (2) the psychologist's generalization about the student's cognitions (e.g. anticipates rejection in social situations); and (3) the beliefs, attitudes, and assumptions which shape the automatic thoughts and images (e.g., "I must be liked by everyone all the time if I'm to be liked at all").

Rational Emotive approaches to listening are valuable aids to gathering and organizing cognitive data at these various levels. Rush and Giles (1982) encourage the discovery of student cognitive "schemas" using the Thematic Apperception Test, structured self-reports, such as self-concept measures, interview, and sentence completion tests.

Cognitive behavioral techiques allow a smooth transition to techniques and methods which tap a third level of integration by directly assessing cognitive and ego maturational levels, emotional adaptations, and perceptions of loss. Students occasionally and usually spontaneously provide a recollection of significant dreams, which is helpful if it is recalled that depressed children provide dream themes around a hero who loses something of value, is rejected or is punished (Lazarus, 1982). Use of projective tests such as the Thematic Apperception Test has been encouraged by some in order to identify test themes of hopelessness, depression, poor self-image, reactive anger, and dysphoria (Palmer, 1970; Bemorad, 1978; Cytryn & McKnew, 1974; Fabry, 1980). These sources also provide illustrations and guidelines for identifying specific significant diagnostic data necessary to infer depression. Lebovici (1972) reports that interview, drawings, and the Thematic Apperception Test are the best methods of determining presence of depression.

Other tests have been cited in the literature. The Draw-A-Person shows no relationship with depression in students as measured by peer nomination, self-ratings or teacher reports (Gordon, Lefkowitz, & Tesing, 1980). A case illustration of a 7 year old boy is provided by French, Steward, and Morrison (1979) where depression is revealed on the Wechsler Intelligence Scale for Children, Tasks of Emotional Development Test, and Kinetic Family Drawing Test. Fabray (1980) describes the depressive position on the Minnesota Multiphasic Personality Inventory and the Sixteen Personality Factor Questionnaire (16 PF), information useful with adolescent populations but having little application to younger students. The Children's Personality Questionnaire (CPQ) and Early School Personality Questionnaire (ESPQ) are downward extensions of the 16PF, and their use with depressed children thus far has no empirical base. Whether the results of the relationship between the 16PF and depression can be logically extended to the CPQ or ESPQ scales has yet to be determined although the prospects are exciting.

Psychological test results for depressed students are different from adult depressives. For example, anger is often prominently and openly expressed by children while depressive feelings remain vague, the reverse of the adult picture. I tend to agree with Kaufman and Heims (1958) and Toolan (1974) who identify lost body parts on projective tests as indicating a loss of a significant relationship rather than castration anxiety as with adults. The Wechsler scales may show higher performance than verbal scale scores, the reverse of adult depressives (Toolan, 1974). These findings make sense when viewed as developmental phenomena rather than isolated research results; for example, the fear of annihilation in children includes both threats to infantile attachments to significant adults, usually the mother and father, and later threats to sex-role assertiveness. Both lead to test projections of incompleteness, such as missing body parts of the Human-Figure-Drawing test, or children's dreams about being attacked and injured.

Some investigators presume to the discovery of familial factors in their diagnostic studies. Like others, Poznanski and Zrull (1970) found longstanding problems in the families of depressed children, including a high incidence of parental depression, difficulties handling aggression and hostility, and overt parental rejection. Penot (1972), in a study of 5 to 11 year old depressed children, found that the family situation is sometimes characterized by temporary maternal deprivation but more often by traumatic separations; and in all cases the mother had been subject to depression. Paternal contributions to depression in students involved passivity, weakness, and remoteness in their relationships with their children (Cuk, Haasz, & Haasz, 1972). The younger the child, the more important family diagnostic efforts become ultimately for the purposes of environmental manipulation and family involvement for change (Golden, 1981).

Differential Diagnosis

Actually the reason for being concerned with differential diagnosis is that childrens' problems that (1) have behavioral components usually associated with depression, (2) are distinctly depressive in nature, both behavioral and otherwise, or (3) do not reflect the typical behavioral pattern but are nevertheless rooted in depression, follow rather different courses, have different expectations, and respond to intervention differently.

Considering the state of knowledge with depression in students, it is tempting to avoid diagnostic closure and simply confine diagnosis to one or two of the predominant behavioral or psychodynamic factors. Such a stand, however, is not at all satisfactory because the behavioral or psychodynamic configuration is simply another frame of reference which actually is not very different from assuming any other frame of reference. Therefore, it is critical that all factors be viewed in conjunction with one another in order to establish just what psychological picture the student is presenting.

For some years now, and in many ways, I have reviewed hundreds of different cases with colleagues. In doing so I have discovered that the two most common mistakes I and other psychologists make in diagnostic work include: (1) misinterpreting the psychological picture, and (2) mixing plain diagnostic factual observations with all types of theoretical conjectures that have nothing to do with the facts.

For example, one of the greatest diagnostic pitfalls of all occurs in cases of depressed students masking with hyperactivity. It is often likely that students are not given a very complete psychological evaluation. When cerebral dysfunction manifests hyperactivity, the activity level is generally not as grossly intense as is observed in a depressive equivalent activity level. The student with serious cerebral dysfunction who presents a hyperactive picture usually displays rather bland euphoria because he lacks the mental sharpness, wit, and reality contacts with environmental relationships which is typical of the emotionally disabled student with masked depression. The cerebrally dysfunctioned student is mentally less adaptive, less functional, and more unproductive. Silliness or playfullness creeps into the picture, but he lacks the infectious vivacity of the masked depressive. The quick perception, fast associative ability, and rapid response of the masked student are lacking in the cerebrally dysfunctional student.

Staton and Brumback (1981) found behaviors which significantly differentiated depressed children from cerebrally dysfunctioned children, although the behavior of both was characterized by motor hyperactivity. For the depressed hyperactive students higher frequency behaviors included: terminal insomnia, headache, episodic abdominal pain, self-deprecation, episodic loss of interest in school and usual activities, social withdrawal, and talking of death. Although these differences were statisically significant (p. .01; p. .05), practical differences were minimal. For example, in the category "self-depreciation", 61% of the depressed children and 51% of the cerebrally dysfunctioned children had this behavior. This particular observation is not intended as a criticism of the findings but simply to encourage the diagnostician to go beyond behavior when assessing overactive students.

The importance of the family history of depression in diagnostic work has already been indicated. Ossofsky (1974) reports that confirmation is almost never obtained during the initial interview; but only as the parent begins to trust the diagnostician, usually in therapy, does denied or ignored history emerge.

The behavior of motor hyperactivity is a major criteria for diagnosis of the "attention deficit disorder, with hyperactivity" in DSM-III and is assumed to be the result of mild diffuse cerebral dysfunction or damage (Clemmens & Kenny, 1972; Lere & Lere, 1976; Millichap, 1977). Instead, it should be thought of more as a "nonspecific behavioral symptom" (Staton & Brumback, 1981; p. 329), with a great likelihood of appearance in depressed students.

It is true that reactive depression may accompany cerebral dysfunction because of school and other environmental difficulties, but endogenous depression in students occurs with equal frequency in cerebrally dysfunctioned and non-cerebrally dysfunctioned children (Staton & Brumback, 1980; Brumback, Staton, & Wilson, 1980). Since the definition of depression in this chapter, as well as available diagnostic techniques, allows evaluation of the presence or absence of reactive vs. endogenous depression, or a combination of both, making this error with students is a grave technical problem with long-lasting results.

The consequences of misdiagnosis are clear. Believing the hyperactivity a result of cerebral dysfunction, physicians administer stimulant medication in one form or another, and the student is provided minimal stimulation by enclosing him in a cubicle or "time-out" area in the classroom. The student who is actually depressed initially responds "favorably" to the medicine and school intervention because the stimulant acts as an upper, momentarily decreasing the depression and its masked behavior; and the isolation is viewed as a punishment regardless of how it is presented to the student, thus encouraging further withdrawal.

The positive effects, namely, less hyperactive behavior, are erroneously interpreted as confirming the diagnosis. The gains are short-lived, however, and new medicine or dosages inevitably follow (Brumback & Staton, 1981) while the school maintains that "it's a medical problem" and continues the punishing isolations.

These inappropriate techniques actually cement the depressive process, sometimes becoming increasingly overt as childhood changes into pubescence. Lessee (1974) reports that if these children are lucky, they move into high school and are correctly diagnosed as having endogenous depressions as they become more able to manifest familiar adult-like depressive behaviors.

In my opinion, the extent to which a diagnostician is able to detect the degree of student depression seems to depend a great deal on subjective appraisal skills. If the pyschologist is a little depressed himself and has some regressive features he will not be so likely to recognize these same features as signs of depression when present in the student. It is precisely these "islands of psychopathology" that should encourage a diagnostician to seek out the professional opinion of others for substantiation and validation, particularly when he has strong feelings about a student, whether positive or negative.

Another important distinction is to note that depression can occur in any diagnostic category: emotionally disabled, mentally disabled, learning disabled, and so on. It may also occur at any level of restriction from the regular classroom to residential placement. On the other hand, behavioral symptoms usually associated with depression, such as withdrawal, can certainly reflect depression in students; however, they may also reflect narcissism, inferiority, physical problems such as drug effects, poor nutrition or hypothyroidism, serious emotional problems, or even normal depressive adaptive patterns. The diagnostician must force himself to focus on a broad conceptual depressive band-width, while simultaneously integrating the data in terms of developmental, adaptive and behavioral factors.

Intervention Alternatives

The purpose of diagnosis is intervention. Assessment has heuristic value in more difficult cases, but this section of the chapter assumes a relative ease with which the psychologist can carry out his diagnostic work. Intervention in the lives of children who suffer from the pain of depression is never to be taken lightly; just as the rigor and expertise of assessment demand intervention, so does intervention require accurate diagnostic judgments. Diagnosis and intervention depend on one another; they demand one another. One without the other is meaningless, moot, a manifestation of inadequately trained, time-limited, or personally troubled adults who project their own problems onto already suffering students.

General Notions

A certain basic level of understanding must exist when planning interventions with depressed students. Historically, treatment has largely been through medication, individual psychotherapy, and environmental manipulation (Toolan, 1978). In intervention, as well as in diagnosis, there is a ten-fold increase in the level of difficulty in understanding depression in children as opposed to adults, simply because of more rapidly changing developmental phenomena. Add the complexities of developmental perspective to medication, psychotherapy offerings, and environmental modification, and there results a comprehensive, complex, and oftentimes staggering picture of depression in students. Minimally, psychologists should feel competent to work with and plan programs for depressed students if they are trained in child therapy as well as child development and have an operational understanding of psychopharmacology. The average psychologist, social worker, guidance counselor and psychiatrist, in my opinion, does not understand child therapy or child development. In schools, this shortage of adequately trained personnel results in short-term, mostly ineffective, behavioral intervention, while in clinics, medicating is the result. Asking for supervision from a colleague who has already developed these skills can be an important move toward independent professional functioning.

Further, any professional involved in intervention with depressed students needs to have the capacity for critical introspection. Depressed students can precipitate many feelings via countertransference, particularly in professionals who are depressed themselves, either frightened over loss of control, bored over the student's apparent emptiness, appalled at deep feelings of despair and hopelessness, or frustrated with slow growth (Toolan, 1978). It is possible that the preference of some educators for behavioral approaches is based on their inclination to avoid accompanying the student through painful feelings. Not everyone is capable of intervention with depressed students, and decisions regarding who makes up the intervention team should be based on personality as well as training, variables most easily examined by the psychologist.

The outcome data suggests that if we leave depressed students alone they will "improve" (Morrison et al., 1973; Weissman & Paykel, 1974; Davidson, 1976). Overt expressions of depression are time-limited and episodic which might suggest that an intervention be temporally similar and designed to maximize the student's competence in specific coping skills with classroom maintenance available for continuing school enrollment. The problem with these observations is that developmental and affective adaptation in depressed students are dynamic, demanding that more be done toward promoting academic adaptability in depressed students than maintaining them while their depressive behavior decreases.

Principles of child development and affective adaptation indicate that there is no reason whatsoever to predict manic-depressive disorder later in life from even severe depression in students. There are a few verified manic-depressive disorders before adolescence, (e.g., Anthony & Scott, 1960), but depressed behaviors in students seem to largely maintain themselves as masked versions later in life, rather than to manifest themselves in terms of manic-depressive disorder (Mosse, 1974).

Adolescence. Intervention for depression in adolescence should be used judiciously. At any age or developmental level the growing student is experiencing increased independence, autonomy and competence, invariably accompanied by the psychological or physical loss of supportive nurturant figures. In adolescence, therefore, the process of separating from parents is not only a time of rejoicing but also can be viewed as a potential contributor to student depression. The difference between normal adolescent loss and normal losses at earlier ages is that adolescents are developmentally capable of expressing their depression in more familiar terms to adults, such as crying, lethargy, moodiness. Teachers and parents more readily identify with these behaviors and may view them with a more critical eye than less apparent masked versions which occurred at earlier stages when the child manifested depression in equivalent forms such as altered activity level, compensatory moods, or poor school performance.

These losses come in a variety of forms; the most disheartening to parents and teachers alike is deidealization of adult authority figures (Kaufman, 1979). The feelings associated with deidealization, most often manifested in terms of haughty arrogance, are difficult for both students and teachers to accept, but more palatable when viewed in terms of the real and painful loss experienced by the adolescent.

Increased sense of self and decreased dependency on others results in feelings of alienation in adolescents. Winnicott (1965) observes that before intimacy is possible, an adolescent must pass through a period of isolation. He views the adolescent as an isolate and refers to groups of them as "aggregates of isolates." At least one study reports significant increases of self-reported depressive symptoms in 50 normal seventh and eighth grade students (Brady & Antonetti, 1981).

The developmental task for adolescent students is to put feelings and purpose together; where there is failure to integrate emotional and cognitive components, normal depressive reactions are exacerbated, requiring intervention. Failure to integrate is an ego dysfunction, not normal, and characterized by masochism, self-hatred, prudishness, feelings of confinement and isolated aggression (Kaufman, 1979). When this occurs depression has broken the boundaries of normalcy in the adolescent, and intervention becomes necessary.

Anorexia nervosa is an increasingly common specific disorder characterized by an intense fear of being fat and results in a weight loss of 25% or more of an adolescent's ideal weight as measured on growth charts. It is also a disorder with increasing prevalence in secondary school students. Behavior modification has been strongly encouraged as the treatment of choice (Agras, et al., 1974) and is very effective in reversing weight loss. Bruch (1977) and Toolan (1978) have recently offered a caution, reporting several instances of successful weight gain but continued severe depression. "This is not surprising," says Toolan, "since the underlying depression has not been altered" (p. 249). Leaving the subject to others (cf. Garfinkel & Garner, 1982), the point here is that the increasing occurrence of anorexia in students demands that weight loss due to depression be differentiated from weight loss due to anorexia nervosa. DSM-III reports that although anorexia nervosa is characterized by an intense fear of obesity which does not diminish as weight loss progresses, depression is not. Further, depression does not have body image disturbance, as does anorexia nervosa, where the student claims to "feel fat" even when emaciated (American Psychiatric Association, 1980).

Treatment. Areas of inquiry into the mind of a student are distinguished by complexity; simplicity is an illusion. Depressed students can be treated in school with a view toward the future when the full force of the complexity of depression is recognized. Although it is not necessary to differentiate the type of depression, whether neurotic or psychotic, a student has in order to effect change (Hoch, 1972), Nagera (1966) goes to great lengths in a short but powerful monograph to guard against clear but empirically and developmentally naive efforts at precise localization of depression with a resultant simplistic view of intervention. Patty, a depressed preadolescent, for example, is not likely to respond to any single intervention such as training in riding, advice to tough it out, tutoring, or individual psychotherapy in isolation from family intervention. Patty's depression cannot be said to be treated effectively in school until she is able to master school problems, however small, and to gain satisfaction and well-being from her efforts.

In order to decide how to intervene an attempt should be made to measure (1) how severe the depression is and the degree to which it influences the range of the student's growth and development, and (2) the extent to which reconstruction and understanding of some of the meaning behind the depression is possible. Repeating, behavioral measures of depressive ideation do not have dynamic meaning. They are purely mechanisms describing the behavioral attitude of a student and take on psychological meaning only as they relate to affective and developmental factors.

There have been numerous attempts to simplify just what it is that one does in order to help students overcome depression. Stressing verbalization is described at great length by behavioral psychologists because, they say, commenting on what one sees is one of the most important ways for the psychologist to learn sources of successful reinforcers. From a dynamic perspective Mosse (1974) also encourages talking about depressed feelings because of its potential to provide relief and lift depression, as well as to give names to the mysterious thoughts and feelings of depressed students.

Treatment procedures have been describd to include: (1) ventilation of feelings, (2) informal reassurance and guidance, (3) medication and family involvement, and (4) additional environmental assistance as needed (Renshaw, 1973; Toolan, 1978). The behavioral approaches to treatment of depressed students is guided by a single assumption that the restoration of an adequate schedule of positive reinforcement is essential (Lewinsohn, Biglin, & Zeiss, 1976). Cognitive therapy generally has two goals with depressed children: (1) to decrease the incapacitating target symptoms and (2) to bring to awareness the "silent assumptions" or beliefs from which the student operates (Shaw & Beck, 1973).

Psycnodynamically oriented intervention has a strengthened ego as its goal. Only by strengthening ego functions can a student overcome and cope with future tensions and painful events. This assumption encourages increased adaptability, believes behavioral treatment and changes brought about by medicine to be ultimately maladaptive and damaging, and argues that this singular psychological perspective prevents further depressive reactions. Treating depressed students in school, according to this view, requires both generally supportive and specifically reparative responses to the student's perception that there is no point in trying to maintain himself.

The effectiveness of specific techniques with depressed students is not well documented. Dynamically-oriented outcome studies with children are limited primarily to single-case investigations (e.g., Bible & French, 1979); and because they are invariably written by the therapist, or the therapist's supervisor, the success of the cases can be evaluated only in terms of internal consistency and derivative material, a usually impossible task because only minimal interactional information is provided. It would be much more helpful if the reporter provided verbatum accounts of therapist-child communications.

Behavioral and cognitive-behavior therapy has not been as "successful," for its emphasis on empirical precision has allowed comparisons between and within populations. The techniques of behavior therapy have been found to be woefully unproductive with children, first in a comprehensive review of the behavioral treatment of children's fears, (Graziano, DeGiovanni, & Garcia, 1979), and later in a review of cognitive behavioral therapy with children (Hobbs, et al., 1980).

The first report found, among other results, that cognitive-mediation approaches were insufficiently resolved, and that there was little evidence that systematic desensitization or contingency management strategies were effective with respect to reducing children's fears. The second review found a limited ability to assess the utility of cognitive-behavior therapy with children because of little consistency with respect to successful interventions, no generalization from control situations, and a number of methodological problems.

The developmental perspective suggests that the cognitive behavior reliance on the analysis of one's own thoughts would not be a legitimate expectation for students until they reach Piaget's level of formal operations, at about 12 years of age. In an attempt to take these limitations into account DeVoge (1977) and DiGiuseppe (1977) used operant conditioning to systematically reinforce students' "rational thinking" and "self-statements," respectively. Both studies reported success in terms of increased situational self-control, but neither found generalization to new situations.

There is no need to bring the efficacy of psychological intervention with students into question because of these particular outcome shortcomings with dynamic, behavioral and cognitive therapies. Smith and Glass' (1977) study and the many professional responses generated by their article over the past five years has provided convincing evidence for the effectiveness of psychological interventions. Studies such as these generally show no differences between behavioral therapies such as systematic desensitization or behavior modification, and nonbehavioral therapies, such as Rogerian, psychodynamic, or rational-emotive. I suspect, however, that the absence of differences between intervention strategies in psychotherapy results from failure to control for client developmental level.

These studies reflect the current state of affairs in psychotherapy and it will probably be some time before the same degree of rigor will also demonstrate the unquestionable power of psychological intervention with depressed students in school.[6] Until then, the conscientious course is to look sensitively at data, to accumulate it systematically within and across individual students, and to provide a variety of psychological interventions which have demonstrated power to influence depression in students. These include individual techniques, family and environmental restructuring, and the use of medications.

Individual Intervention

The classroom is a naturally active environment. There are interactional stimuli impinging upon students from all directions: animate or inanimate, teacher or student, conscious or unconscious. Multiple stimuli is a given.

Even removing a student to a cubicle or "time-out" room only minimally influences stimulation. Given this context, intervention strategies with depressed students must be active, calculated and decisive in order to help focus the student's attention on relevant stimuli.

Adults take an active *intervention stance*[7] regardless of the individual technique that is applied; this position cuts across all intervention. It is characterized by an early statement of objectives and gearing to the achievement of relatively specific goals. Most importantly, it implies that the adult is actively attentive to the student and applies techniques in a flexible, sensitive and meaningful way to individual students. Because of training and experience, it is most likely the psychologist's responsibility to facilitate and coordinate these attentive efforts in the school setting.

In the literature, individual intervention with depressed students has included cognitive-behavioral approaches (Jakibchuk & Smeriglio, 1976; Oden & Asher, 1977), Rational Emotive Therapy (Butler, et al., 1980; Knaus, 1974; 1977; Meichenbaum & Goodman, 1977; Lee & Park, 1978), paraverbal techniques such as singing (McDonnell, 1979), and role playing (Butler, et al., 1980).

Familiar techniques which have been reported for adults, but not children, include contracting and modification of overt verbal behavior by reinforcing lower frequency verbal categories (Lewinsohn, Biglan, & Zeiss, 1976), thought-stopping (Wolpe & Lazarus, 1966; Wanderer, 1972; Yamagami, 1971), and short-term dynamic therapy (Green, Glaser, & Seifert, 1975; Sloan, et al., 1975).

Rationale-Emotive Education (REE) is a planned, systematic cognitive-behavioral, rational-emotive, re-educational system. William Knaus is the person who has been primarly responsible for REE and in an excellent short writing discusses the content of REE (Knaus, 1977). McClean (1976) provides an intensive flow chart for decision-making in behavioral intervention with depression. He identifies six skill areas and their respective problems, treatment intervention and pre-post improvement criteria. The six skill areas are all related to depression as defined by the behaviorist and include communication, behavioral productivity, social interactions, assertiveness, decision-making and problem solving, and cognitive self-control.

The problem with McClean's flow chart is that it is geared for adults. To be effective with students it is necessary to consider the developmental level of the student, his behavior, affective organization and perception of loss in terms of McClean's treatment areas. If the student's behavioral repertoire is found lacking in one or more of the areas, then a search for behavioral techniques which apply to children is necessary, for example teaching self-control to depressed students by teaching them to talk to themselves as encouraged and researched by Donald Meichenbaum.

Psychodynamic intervention for depression in students has not received as much attention because of its rigorous requirements for understanding student motivation prior to intervention. Such an understanding is usually necessary in elementary or secondary students because of developmental effects and masking; psychodynamic positions provide useful techhniques and continuity whether practiced in individual psychotherapy or the school classroom.

Consider students who are physically abused, depressed and masking their depression with equivalents. Their depression is not only less reversible than other types of depression, but giving it up may actually harm the student because of the student's diminished capacity to face, own and reintegrate his fears and rage (Bible & French, 1979). The treatment dilemma is to provide support and nuturance without triggering the sequence of student self-destruction, anger directed outward followed by anger directed inward. The psychologist must be prepared to weigh heavily the cost of additional interpersonal support in school for abused students; and if supportive interventions are initiated, the psychologist must be prepared to respond whenever and wherever to the student's basic conceptualizaton of the self-environment relationship. In this task the student's depression may not be a perceptible mood, but it certainly becomes an indispensible intervention tool.

Secondary precautions must be taken by the psychologist to preserve and maintain teacher support for depressed students with behavioral problems. Teachers must be included in the treatment process from the beginning, and must be helped to understand the student's feelings of depression, pain, loneliness, and helplessness, and, even more importantly, to change themselves in order to give the student the type of support he needs.

Classroom intervention with masked depression in students is limited by the students' use of denial and projection as defense mechanisms. In the first place, as the student sees it, he does not need anyone to help; secondly, he invariably tests the teachers' supportive efforts to see if they really care; and thirdly, supportive efforts often result in the student becoming anxious and frightened as the support is experienced, as it revitalizes awareness of previous losses.

According to the dynamic pespective, great patience is the hallmark for intervention. From my vantage point, time is the school's ally, a constant friend that remains unchanging. Given adequate diagnostic and treatment bases, the school can effectively and literally provide years of treatment to a depressed student through unchanging, rigid and uniform support from the principal to the aide, pre-school through high school, physical education through mathematics. Continuity is the key to alleviating depression and the school setting has the greatest potential to provide continuous environmental consistency for the student.

Individual psychotherapy may be a useful educational adjunct at certain points; but, provided the training and skills are available to the psychologist, psychotherapy should most expiditiously be provided within the school setting, again to maintain continuity. For younger students psychotherapy may act as a catalyst, regularly scheduled at the beginning, less frequent as the therapist's strengths are internalized, and always available as the student continues growth.

Understanding dynamic developmental patterns for students with masked depression tells the psychologist that if intervention is successful overt depressive feelings in secondary students can be expected, but probably not in elementary students. The technical aspects of intervention are important here and pose other types of management problems. Teachers become impatient waiting for change; they want progress not depressed feelings. Sometimes sad, hurt feelings will frighten teachers and it will be important to step up supportive efforts to them during these transition periods. While continuing to encourage the teacher to maintain primarily a supportive relationship with the student, it may also be important to enroll the student in short-term dynamic therapy (Rush, 1982).

Whether treatment is in the regular classroom, a self-contained setting, residential placement, or individual or group therapy, the adult-student relationship is primarily supportive. Strategic dynamic principles remain basically the same regardless of various tactical maneuvers in treatment. The task of intervention is to correct a failure of the student's ego in performing its function of securing adequate gratification for educational needs under existing classroom conditions.[8] Failures are resolved within an interpersonal educational environment that is in some ways similar to earlier interpersonnel experiences, thus precipitating conflictual patterns of relating, but is different by providing consistent support in spite of these conflicts, thus serving a therapeutic function (Alexander and French's notion of the "corrective emotional experience"). The greater the effect of the student's depression on school performance, the greater the need to provide a controlled classroom setting so that the differences between these two forms of relatedness can serve their unique function and the more incisive and radical the therapeutic change can become (Strupp, et al., 1982).

Family and Environmental Restructure (FER)

The most obvious need for FER occurs when the observance of a masked depression leads to the discovery of emotional or physical real life dangers. The enormously important role played by alcohol in one or both parents of abused children dictates careful examination of parents of students with masked depression (Fontana, 1964; Wertham, 1972; Mosse, 1974). Under these conditions, immediate FER may take the form of a social services referral and facilitating placement of the child in a foster home.

On a less urgent but equally important level, FER, so far as the school is concerned, depends a great deal on the student's age and the extent to which the student's depression interferes with his school performance: i.e., younger students with more depression-performance interferences require greater FER. In FER emphasis should be placed on home and community conditions, often requiring treatment of the parents' depression as well (Pearce, 1977).

By educating the family to understand the student's depression, tension over aberrant behavior can be reduced. Rejection and punishment should be discouraged in the parents, and they should be encouraged to provide increased supervision, protection, affection and reassurance (Brumback & Weinberg, 1977). The parents can be helped to understand environmental situations which are particularly stressful to their child, and they can be encouraged to provide additional support during these situations or to avoid them altogether. Since hospitalization usually results in isolation and emotional deprivation, it should be avoided as a recommendation unless necessary for protection or managing drug treatment.

Changing the family can be extremely difficult. Goldie (1972) reports that depressed children often act as scapegoats for the parents' own guilt and frustration, and that parents are passive and noncommunicative. In the young or seriously depressed student it becomes a sensitive and difficult treatment task for the family members to admit their guilt, experience a depression themselves, and begin to grow together.

Paul Hauck has treated families of emotionally disturbed children for years using Rational Emotive Therapy. In a delightful chapter on "Irrational Parenting Styles" (Hauck, 1977) he discusses specific techniques which have potential for changing parenting with depressed students. Accordingly, Hauck discusses three common erroneous beliefs about child-rearing that are particularly destructive to depressed students: (1) children must not disagree with their superiors; (2) children must not be frustrated; and (3) children should be calmed first, adults second. Throughout the chapter he outlines combinations of faulty patterns of child-rearing based on these erroneous beliefs and emphasizes the "how to" aspects of working with parents to overcome these problems as well as their child's depression. This chapter is a good place to start if the reader is inclined to work with parents.

Psychopharmocological Intervention

Using medication with depressed children has mixed reviews. Kashani, et al. (1981) summarizes the current state of the medical approach, criticizing present studies on methodological grounds, most commonly the (1) absence of explicit diagnostic criteria, (2) lack of a control group, and (3) failure to use double-blind procedures to prevent bias in evaluating effectiveness.

Given these limitations, effectiveness of antidepressant medication such as imipramine, amitryptiline has been reported by Brumback, Dietz-Schmidt, and Weinberg (1977), Frommer (1967), and Stack (1972). Frommer's reports have been criticized because of the diagnostic overinclusiveness of her studies (Kashani, et al., 1981). Stack does find positive effects with antidepressants, but also discusses the importance of separating different types of childhood depression before selecting a pharmocological intervention. Krakowski (1970) raises similar issues, stating that when the depressive symptoms are prominant, antidepressants are of little benefit, but when hyperactive or other behavioral disturbances and somatizations are present, the effects are more positive. Toolan (1974) also summarizes in terms of negative effects with antidepressants.

Lithium carbonate has been successfully used to treat manic-depressive disordered adults. In a double-blind study Gram and Rafaelson (1972) report improvement of psychotic children. Further, improvements in children's behavior using lithium were reported by Annell (1969), Dyson and Barcai (1970) and Horowitz (1977). However, only the Horowitz study included subjects whose problems resulted from depression, and the sample population was limited to adolescents, a group which in many ways is similar to adults.

The use of stimulant medication with depressed students has reached a psychopharmocological crisis. Previously in this chapter, the importance of sorting cerebrally dysfuntioned hyperactive students from students whose hyperactive behavior represents a depressive equivalent was discussed. Although stimulant medication may briefly ameliorate depressive behavior, the depression itself has remained untouched and may be worsened by prolonged use of stimulants (Barkley, 1977; Cantwell, 1979; Staton & Brumback, 1981). Specifically, inadequately treated depression in students may impair interpersonal and cognitive skills and result in chronic low self-esteem, depressed mood, and feelings of helplessness (Rapoport, 1977). The Physicians Desk Reference cautions that careful supervision of stimulants is required during withdrawal since severe depression can be unmasked.

Monitoring Methods

Like most areas of psychlogical change, increases or decreases in a student's depression may be inferred at various levels. Understanding D_s in terms of *L, A, M,* and *B* allows for monitoring at any one or all of the levels, primarily in terms of affective assessment and behavioral observation. Interview data can be used if one goes beyond the content of the student's associations and looks for derivatives surrounding themes of loss, helplessness, anger, and so on. I refer to a previous section on diagnosis for details.

There are only smatterings of pre-post data for children. Gromska and Tyszkiewics (1972) used paintings in children ages 9 to 17 years as indicators of improvement. Initially the paintings showed mutilation and monotony with lack of color and poor technique. With improvement, islands of vivid color emerged and gradually appropriate color choices returned in all subjects.

Monitoring has been the hallmark of behavioral change with adults, but as previously indicated behavioral techniques have not been very successful with depressed children. Rather than use methods devised for adults, it is important to outline comprehensive changes in terms of decreased dysfunctional behavior, increased adaptation according to developmental maturity, with an eye for perceived gain rather than loss from significant others. In this way monitoring techniques for depressed students can be tailored to consider the student's pain, complexity and eagerness for change when interventions are consistent, supportive, and conflict with expectations for loss.

Conclusions and Considerations

As noted in the "Introduction," depression in children is only a recent reality for psychologists, more so for those working in schools. Subsequent sections of this chapter have emphasized different theoretical and practical approaches to the diagnosis and treatment of depressed students. Whether psychologists wish to emphasize measurable behavior, interpersonal roles, cognition, or unconscious drive and motives, they are still left with the question: For which depressed students are all or none of these techniques and understandings necessary? There is a great need to scientifically evaluate the effectiveness of specific interventions with depressed students. I believe it will be very important to find out which kind of depressed student, based on adaptive functions and developmental influences, should be treated with what kind of intervention, instead of using generalizations and bending the tactics to some theoretical principle.

Depression is a pervasive problem and prevention in students at risk should be addressed. But this cannot be done until some agreement is reached about the components of student depression; I know of no way to prevent something when its essence remains unknown. An earlier section in this chapter proposed a definition which attempted to clarify and unmask problems of anonymity in terms of *L, A, M,* and *B.*

Some things are known. For example, each time an intervention is successful with a depressed student, society stands to gain a person capable of becoming an adequate parent, thus breaking the intergenerational depression cycle. Psychologists in the schools must appoint a watchdog to keep abreast of new discoveries as they emerge and apply to depression in students. The schools hold the greatest promise for change in individual students and psychologists must be kept abreast of the significance that answers might have in terms of relieving student suffering now and in future generations.

Footnotes

1. The reader may be more limited if professionally oriented toward psychodynamic influences in depression. Compared to other theoretical positions, the dynamic developmental perspective in the study of childhood depression has a rich pre-1970 and European history. A reader so oriented may wish to review the 1912 work of Abraham (In Gaylin, 1968), Bibring (whose contributions are summarized in Robertson, 1979), Bowlby (1973), Anna Freud and Burlingham (1944), and Rene Spitz's classic work describing "anaclitic" depression (Spitz, 1946), a 1952 special issue of *The Nervous Child* which was devoted to manic-depressive disorder in children, and the discussion around whether depression in children was psychodynamically possible and whether some behavior disorder could be masking underlying depression (Finch, 1960; Rie, 1966; Toolan, 1962; Glaser, 1968; Murrey, 1970).

2. *Diagnostic and Statistical Manual of Mental Disorders* (Third Edition), 1980. See References for citation.

3. This knowledge is usually gained through projective identification; that is, by seeing behaviors which would, if experienced by one's self, be termed depressive.

4. Type one derivatives are readily available inferences derived from the manifest content of the student's diagnostic material, and type two derivatives are inferences from the manifest content of the student's material which organizes around a particular assessment context, which is, during diagnosis, the particular relationship between psychologist, student, and assessment stimuli.

5. These references refer to specific investigations which utilized the test instrument as a variable. Exact sources of the instrument will be cited in the following paragraphs.

6. The pervasive influence of learning psychology on general educational programming has been an accepted and well-researched area of intervention for decades; and along with the data from extra-school intervention techniques, primarily, psychotherapy, there are unique research and practical antecedents already established.

7. This is an educational adaptation of one of Medelsohn's (1978) critical factors in short-term psychotherapy, specifically an "active therapeutic stance."

8. Some of you will recognize this as reminiscent of the words of Alexander and French (1946): "Every neurosis and every psychosis represents a failure of the ego in performing its function of securing adequate gratification for subjective needs under existing conditions" (p. viii).

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Psychosomatic Disorders in School Age Children

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Abstract: This chapter reviews the definition, background, and history of psychosomatic disorders. In addition, it reviews the assessment and diagnostic procedures used by school psychologists to determine whether or not a psychosomatic disorder exists in a particular child. Psychosomatic disorders are compared and contrasted to symptoms which seem like psychosomatic disorders, but are not considered to be psychosomatic disorders. Case studies conducted by school psychologists are used to illustrate the assessment techniques as well as the interventions used to treat children with psychosomatic disorders. Finally, this chapter reviews the methods used to monitor the effects of a psychological intervention.

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Definition, Background and History

Definition

Schaefer, Millman and Levine (1979) define psychosomatic disorders as "any physical conditions that can be initiated, exacerbated, or prolonged by psychosocial factors." They go on to say that any physical disorder may be psychosomatic in nature, since emotions influence all bodily processes. This definition, then, does not seem to discriminate between "truly" psychosomatic disorders and those which seem to be, for all practical purposes, "purely physical".

The first diagnostic criterion for psychosomatic disorders (replaced by the term Psychological Factors Affecting Physical Condition) which appears in the 1980 edition of the American Psychiatric Association's Diagnostic and Statistical Manual ("DSM III"; APA, 1980) states that psychological or psychosocial factors must be "temporally" related to the initiation or exacerbation of a physical condition. In other words, the psychosocial factors or emotional stress must occur at about the same time as the onset or worsening of a physical condition in order for that physical condition to be regarded as psychosomatic in nature. Then the onset or worsening of a physical condition could be regarded as the result of psychosocial factors. However, according to Ross (1974), the connotation that psychological factors "cause" physical symptoms is unwarranted. The physical symptoms could more appropriately be conceptualized as resulting from several causal factors, e.g., genetic predisposition, personality and environment. The author of this chapter, by incorporating elements of definitions in the professional literature, proposes the following definition of psychosomatic disorders: (1) physical conditions in which psychological factors are significant causal factors in the onset, worsening or prolongation of those physical conditions; (2) the psychological factors must occur at about the same time as the onset, worsening or prolongation of the physical conditions, and (3) the psychological factors exist among other causal factors.

A facet of definition which is of more immediate concern to school psychologists is how the referral agent has expressed the problem on a referral form. For example, this school psychologist received a referral from a parent which stated, "Jane has anxiety and nerve problems regarding school. She has a stomach ulcer. We want the psychologist to explore the possible emotional factors." This statement of the presenting problem raised several questions: did the client receive a medical examination and diagnosis; how do the "anxiety and nerve problems" translate into behavior; how long have the problems been going on; what are the possible sources of stress in the client's home and school environment and with what frequency do the stomachaches occur? It was essential that this school psychologist contact the referral agent and encourage her to express the presenting problem in operational terms, as much as possible. This investigation of the presenting problem helped to determine the degree to which the presenting problem matched the definition of a psychosomatic disorder, i.e., the degree to which the client's stomachaches appeared to be stress-induced or stress-related.

The following is a description of the nine-year-old child's "anxiety and nerve problems" subsequent to contacting the referral agent.

> Jane was referred for evaluation due to "anxiety and nerve problems" regarding school. More specifically, she has a stomach ulcer. The mother wanted the psychologist to explore the possible emotional factors.
>
> The physician indicated to the mother that Jane has a recurring telescopic bowel. This began at Christmas time (the psychological evaluation was done in February) when Jane was having severe stomachaches. At this time the physican made the diagnosis of bowel infection.
>
> Jane was having stomach pains every morning before school. She did not want to go to school, but, her mother would give her the medicine, send her to school, and try to reassure her. However, she would usually get a phone call and would have to get her. Subsequent to this, Jane would feel better and the mother would take her back to school. Jane would then stay in school without much stomach trouble.
>
> Jane never wanted her mother to leave during the day. If the mother had to be gone during the day, Jane would invariably get a stomachache. Even when Jane was at home with her father, she called her mother to come home. The mother reported that Jane gets the chills and that she shakes every morning before school. Sunday she didn't want her mother to leave her in Sunday School. It was reported that Jane is afraid that when she gets her stomachaches her mother won't be there to help.
>
> The mother reported that Jane worries about "things in general"; but her biggest fear is being away from her. The mother said that she has done a lot to reassure Jane; however, Jane worries in spite of this reassurance.

This more detailed statement of the referral problem helped to determine the degree to which the presenting problem matched the definition of a psychosomatic disorder. The interview with the mother along with other assessment techniques revealed that the presenting problem matched the definition of psychosomatic disorders reasonably well.

The interview revealed that Jane was evaluated and diagnosed by a physician. A physical condition did, in fact, exist. In other words, there was an alteration in physiological functioning accompanied by an alteration in body structure, i.e., tissue damage. This is not to say that every psychosomatic complaint will be accompanied by demonstrable tissue damage. In some cases, the alteration in physiological functioning may exist without detectable tissue damage, e.g., vomiting. However, in the author's opinion, it should be a health professional who determines whether or not a physical condition exists.

With respect to the second point in the definition, Jane's physical condition became worse in response to psychological factors. She developed stomach pains every morning before school. The onset of Jane's stomach pains occurred at the same time as the stress of her scheduled departure for school and separation from her mother. In addition, Jane was receiving secondary gain from her physical condition. She was receiving plenty of desired attention from her mother.

It would be unrealistic to infer a simple cause-effect relationship between the stress of Jane's separation from her mother and her physical condition. More realistically, the stress could be regarded as a causal factor which existed along with other causal factors, e.g., Jane's coping style and her family health background.

This case illustration of Jane was used to add clarity to the definition of psychosomatic disorders and to make it relevant to the practice of school psychology. Some of it overlaps the subject of assessment, which will be discussed in a later section of the chapter. At this point, it would be appropriate to review the history and background of psychosomatic disorders.

History

Wittkower and Dudek (1973) place the beginning of psychosomatic medicine in the histories of Greek, Egyptian, Chaldean and Indian medicine. The emphasis in those ancient civilizations was on the more esoteric body-spirit aspect. This emphasis on the body-spirit relationship was a precursor in the development of knowledge about the body-mind relationship.

Wittkower and Dudek (1973) attribute the importance given to the role of emotional factors in disease to patient records left by Hippocrates (460-376 B.C.). His work was instrumental in shifting the emphasis from spiritual phenomena to factors within the patient. According to Millon (1969) the case histories left by Hippocrates contained accurate descriptions of depression, phobias, convulsions and migraine. However, Millon goes on to say that the term "psychosomatic" was not used until 1818 when it was applied to cases of insomnia by Heinroth. Hippocrates and Galan promulgated the notion that diseases, in general, were caused by disturbances of the four body humors. This notion was erroneous but relatively more plausible than demons and spirits! In addition, it was heuristic in that it served as a model for the future investigation of the roles of the nervous and endocrine systems in psychosomatic disorders.

The importance given to spiritual factors showed several cycles of emergence and decline up until the modern scientific era.

According to Wittkower and Dudek (1973), Freud ushered in the modern scientific era at the end of the nineteenth century with his emphasis on the importance of psychological factors in the development of disease. People such as Hughlings-Jackson, Sherrington and Cannon (in Wittkower & Dudek, 1973) were instrumental in making psychosomatic medicine a scientifically justifiable part of medicine. More specifically, Cannon conceptualized how emotional tension could be conducted to any part of the body through the central nervous system. World War II created the need for psychologists to seriously investigate several areas of abnormal behavior which were thought to be related to stress, i.e., the stress of combat. Psychosomatic disorders were no exception. Wittkower and Dudek (1973) credit the large number of soldiers disabled from psychological stress and the publication of Dunbar's book (1953) Emotions and Bodily Changes with providing the impetus for the scientific advances which took place between 1935 - 1965.

An important milestone in the development of the field of psychosomatic medicine was the general adaptation syndrome proposed by Selye (in Levanway, 1982). The central idea of Selye's concept is that both biological and psychological loss in integration occur in response to prolonged exposure to stress. More specifically, the body reaches a state of exhaustion from prolonged and exaggerated defensive behavior (i.e., Flight or Fright).

The results of Brady's executive monkey experiment (in Schneider & Tarshis, 1975) lent credence in Selye's concept. Brady's experiment showed that monkeys that could avoid electric shock by pressing a lever developed ulcers. Another group of monkeys received an electric shock every time the avoidance group did; however, this group was not given the opportunity to avoid the shock. If the animals in the avoidance group failed to press the lever, then this resulted in shock for themselves and the "yoked" group. Monkeys in the "yoked" group did not develop ulcers. Brady's conclusion was that the ability to control the receipt of shock was the critical factor in producing ulcers. The stress which was associated with this ability to control the receipt of the shock was regarded as something analogous to the stress experienced by humans functioning in a decision-making role; e.g., business executives.

Wittkower and Dudek (1973), in their historical review, describe how the psychosomatic approach went through a period of nonacceptance by traditional medicine within the last century. Traditional medicine held rigidly to a strictly organic approach. The stress-related disabilities of soldiers in World War II and the publication of Dunbar's book helped to change the attitude of traditional medicine.

There is an attitude among people in the general public that psychosomatic disorders exist "only in the mind." In other words, the lay public tends to confuse psychosomatic disorders with a category of disorders which is clinically termed Hypochondriasis. The term psychosomatic has become a pejorative. It was later replaced by the term Psychophysiologic Disorders. The 1980 edition of the DSM uses the term Psychological Factors Affecting Physical Condition. These latter two terms connote that a physical condition does exist.

Theoretical Background and Etiology

The theoretical models which attempt to explain the causes and the underlying principles of psychosomatic disorders are dichotomized in two ways: i.e., psychoanalytic versus nonpsychoanalytic and specificity versus nonspecificity. The psychoanalytic versus nonpsychoanalytic dichotomy (Wittkower & Dudek, 1973) relates to whether or not a particular theory emphasizes some type of internal conflict (e.g., repressed aggression) as a causal factor. Most of the psychoanalytic theories range from those in which the symptoms are symbolically meaningful to those in which the symptoms are meaningful only as effects which result from the blocking of emotional expression. The specificity versus nonspecificity dichotomy (Millon, 1969) relates to whether or not a particular theory recognized a relationship between certain types of psychological stress and certain types of physical conditions. Some theories maintain that there is a one-to-one correspondence between types of stress and types of symptoms. Others, however, contend that all sources of psychological stress produce similar diffuse physical conditions. This section of the chapter will review one or two theoretical models to represent each category.

Freud, of course, considered unfulfilled sexual instincts to be the culprit whenever good mental health went awry. Psychosomatic disorders were no exception. According to Millon (1969), Freud viewed anxieties, neurasthenia and hypochondriasis as the result of a failure to discharge physiological sexual instincts. Freud's disciples, however, were oriented more toward the social than the sexual. Consequently, they viewed psychosomatic symptoms as the result of repressed internal conflicts in general. Ferenczi (in Millon, 1969) considered diarrhea to be "an aggressive form of giving to others which substituted for real performance." A more earthy version of Ferenczi's notion has even found its way into contemporary slang usage! The main criticism of this theory, according to Millon (1969), is that it has been shown that the visceral organs are not connected to higher brain functions. Therefore, they do not lend themselves to the expression of symbolic ideas.

Psychoanalytic theory emphasizes the importance of regression in the etiology of psychosomatic disorders (Kleinmuntz, 1974). In other words, the person with a psychosomatic disorder is said to have reverted to an earlier stage of psychosexual development. For example, gastrointestinal disturbances might be conceptualized as the result of "oral dependency". Kleinmuntz criticized psychoanalytic hypotheses for being couched in complicated, and often nontestable, terms.

According to Wittkower and Dudek (1973), both Dunbar and Alexander stressed the notion thatpsychosomatic symptoms result from the blocking of emotional expression. However, they both believed that psychosomatic symptoms have no symbolic meaning. Dunbar's theory stresses the correspondence between personality types and specific psychosomatic symptoms (Millon, 1969). According to Millon (1969), Alexander agreed with Dunbar that psychosomatic disorders should not be viewed as symbolic "conversions", but did not agree with her view of a direct relationship between particular personality types and specific psychosomatic disorders. Alexander believed that each psychosomatic disorder was related to a specific type of "unconscious conflict", which can be found in a variety of different personality types. The view of Kleinmuntz (1974) was that Alexander's hypotheses, unlike most psychoanalytic hypotheses, have lent themselves to laboratory tests and have resulted in evidence which has been favorable to those hypotheses.

Kaplan and Kaplan (in Millon, 1969) were among those theorists who believed that the specific form of psychosomatic disorder cannot be predicted by the specific type of psychological stress. They believed that patients who are chronically unable to deal with anxiety are stongly disposed to show some form of psychosomatic disorder. In addition, they viewed psychosomatic disorders as a consequence of the breakdown of psychological defenses. Kaplan and Kaplan credited other mechanisms, such as conditioning, for playing a role in some cases. However, they did not attempt to answer the question of what accounts for the type of disorder suffered by a particular person.

Laboratory conditioning studies (Miller; Miller, et al.; Schwartz, et al., and Shapiro, et al.; in Kleinmuntz, 1974) have yielded evidence for the etiology of psychosomatic disorders. Those studies have attempted to show how the principles of operant and respondent learning account for the development of psychosomatic disorders. In other words, they have shown that people can learn to control bodily processes which are commonly regarded as involuntary. For example, one of Miller's studies showed how subjects can produce autonomic changes within their cardiovascular system. If the principles of learning can account for the explanation, prediction and control of physiological responses in the laboratory, then, perhaps they can account for why and how a person develops abnormal physiological responses. Learning theories are frequently criticized for being overly simplistic and mechanistic in explaining "complex" human behavior in general. However, they do have the advantage of being readily testable.

There are several theories which Millon (1969) referred to as "constitutional specificity" theories. The theories which fall into this category maintain that people with distinctive and different "physiological reaction patterns" or constitutional characteristics are disposed to develop specific types of disorders. Studies were cited (Lacey & Lacey; Mirsky; and Malmo; in Millon, 1969) which have shown that people show distinctive and stable types of physiological reactions to stress. A particular example given was that some people characteristically react with muscular rigidity to pain and embarrassment while others react to the same type of stress with stomach upsets. Presumably, people that react to stress with muscular rigidity are especially prone to develop headaches. Millon (1968) raised the question of whether those reactivity patterns are acquired or inborn. He then cites studies (Murphy, et al.; and Thomas, et al.; in Millon, 1969) which showed that distinctive autonomic behavioral patterns are shown shortly after birth and persist for many years thereafter. The results of those studies suggest that the behavioral patterns are inborn. However, Millon noted that the constitutional thesis does not preclude the role of environmental influences. In support of the constitutional hypothesis, Tyler (1965) indicated that medical research has shown that there are important constitutional factors in susceptibility to various diseases; e.g., long-thin types are more likely to develop respiratory problems while short-thick types develop high blood pressure. According to Millon (1969), the constitutional specificity theory is based on empirical evidence, can account for which people experience psychosomatic disorders in the first place and can account for which specific disorders those people will display. In addition, this theory is compatible with the role of psychogenic influences.

Wittkower (Wittkower & Dudek, 1973) has a concept which he refers to as "transcultural psychosomatics." According to this concept, disease can be viewed from the genetic, biological, psychological, social, and cultural viewpoints. This means that such things as value orientation, family structure, role and status of women, urbanization, political change and social institutions all have a bearing on the frequency and incidence of psychosomatic disorders. Wittkower conceded that at present this approach is mainly an area for research.

Millon (1969) made some evaluative comments about the theories and research on psychosomatic disorders. Some of his conclusions were that: (1) the evidence indicates that the specific type of disorder shown by a person cannot be predicted from the specific nature of his or her psychological problem; (2) psychosomatic disorders generally arise as a consequence of the failure to relieve tensions, regardless of the content or source of those tensions; (3) psychosomatic disorders achieve the functions of keeping from awareness the source and content of tension (i.e., primary gain), inhibiting the expression of socially unacceptable behavior and obtaining attention, sympathy and nurture (i.e., secondary gains); and (4) the research indicates that the specific type of disorder the person develops is likely to depend either on genetic vulnerability or temperament.

This overview of the theoretical background of psychosomatic disorders does not come close to exhausing all of the theories and research. Rather, it was meant to represent a cross section of the theoretical backgrounds. There is such a wealth of background information on psychosomatic disorders that an attempt to capture its entirety would diminish its relevance to school psychology. In addition, it would be likely to result in a painful, slow-healing "writer's cramp"!

Assessment and Diagnostic Procedures

This section will help school psychologists consider various methods for assessing the presence or absence of psychosomatic disorders in school children. Prevalence will be discussed first, since it logically seems to be a major factor in establishing the relevance of psychosomatic disorders to the practice of school psychology. Next, the essential features of symptoms and disorders which resemble psychosomatic disorders will be outlined. Before the psychologist begins to assess the presence or absence of psychosomatic disorders, he or she should be familiar with the essential feature of psychosomatic disorders. In addition, the psychologist should be familiar with the essential features of disorders which are likely to be confused with psychosomatic disorders. The psychologist can then compare and contrast the characteristics of a particular child's somatic complaints with those essential features. Psychosomatic disorders in school age children are sometimes likely to be confused with malingering and hypochondriacal complaints (Thompson, 1977). The other types of somatic complaints outlined in DSM III, with the exception of Malingering and Hypochondriasis, are relatively unlikely to be confused with psychosomatic disorders by virtue of prevalence and age of onset. Therefore, the other disorders will be outlined briefly while Malingering and Hypochondriasis will be described in more detail. Another purpose of assessment is to determine the severity of a child's somatic complaints. The nature and severity of the disorder should determine the type of intervention which is used to improve the problem. Finally, the specific methods and instruments used to assess children with somatic complaints will be discussed. In addition, those instruments and methods will be applied to actual school psychological referrals.

Schaefer, et al., (1979) reported that psychosomatic disorders were among the most common causes of repeated absence from school. In addition, they estimated that 2-6% of school children suffer from asthma alone. May (1975) estimated the incidence rate for abdominal dysfunction to be at 10 to 11% of school age children. He added that organic pathology is rarely found and that emotional factors are considered primary causes of abdominal dysfunction in children. According to Wenar, Charles, et al., (in Frerichs, 1969), research shows that psychosomatic disorders do not have their origins in children but pronounced symptoms might occur at this age. This school psychologist surveyed all 347 school psychologists in Iowa. The survey was comprised of questions regarding the prevalence, assessment and treatment of psychosomatic disorders. Responses were obtained from 84 school psychologists at the time of this writing (a response rate of 24%). Table 1 presents the number of referrals received by each school psychologist in which a somatic complaint was a major part of the presenting problem. In addition, Table 1 presents this data in terms of the percent of each school psychologist's total caseload. It can be seen from Table 1 that the vast majority of school psychologists that responded to the survey (81%) received at least one referral in which the major part of the presenting problem was a somatic complaint.

TABLE 1

Number of Psychologists and Their Reported Incidence Figures

n	Number of Referrals	n	Percent of Total
16	0	46	2
49	1-5	24	2-5
9	5-10	9	5-10
6	10-15	3	10-15
3	15-20	2	15-20
1	20-25	0	20
0	25		

The incidence figures reported in the literature apply to the school age population in general. In other words, there were no incidence figures for different age groups within the school age population. Four of this school psychologist's colleagues had a combined total of 35 referrals in which a major part of the presenting problem was a somatic complaint. These 35 referrals were distributed across age levels as follows: (1) one referral at the 0-5 year level; (2) fourteen referrals at the 6-10 year level; (3) fourteen referrals at the 11-15 year level; and (4) six referrals at the 16-20 year level.

The result of this part of the survey and prevalence estimates which appear in the literature support the relevance of psychosomatic disorders to the practice of school psychology. A sizeable number of children in the school age population have psychosomatic symptoms.

The DSM III outlined the diagnostic criteria for psychosomatic disorders or Psychological Factors Affecting Physical Condition. These criteria are:

A. Psychologically meaningful environmental stimuli are temporally related to the initiation or exacerbation of a physical condition.

B. The physical condition has either demonstrable organic pathology (e.g., rheumatoid arthritis) or a known pathophysiological process (e.g., migraine headache, vomiting).

C. The condition is not due to a Somatoform Disorder. (pp. 303-304)

Some common examples of "psychologically meaningful stimuli" which affect school age children are marital fighting, divorce and information that a loved one has died. Some of the physical conditions in which stress is a contributing factor include: obesity, tension headache, migraine headache, neurodermatitis, acne, asthma, ulcer, nausea and vomiting, and ulcerative colitis.

There are two exclusionary categories of disorders in the DSM III which are similar to psychosomatic disorders in that the symptoms are linked to psychological factors. One of these disorders is referred to as Malingering. Malingering is a category in itself. The other exclusionary category is referred to as Somatoform Disorders. The Somatoform Disorders will be outlined very briefly, with the exception of Hypochondriasis.

The essential feature of Malingering is that the symptoms are under the person's voluntary control. In addition, the person who is malingering usually has an ulterior motive; e.g., a student wants to avoid doing an assignment and feigns a stomachache. Thompson (1977) reported that malingering is seen frequently in school age children. She went on to say that this response is mild and of short duration. In the example of the student who complains of a stomachache to avoid an assignment, the stomachache passes when the student feels that he or she has successfully avoided doing the assignment. If a student consistently complains of a stomachache before math class begins each morning, then he or she may not necessarily be malingering. The student may be experiencing some aspect of that class as stressful (e.g., the teacher or the subject matter). In the case of Malingering, the reported symptom is usually not stress-induced or stress-related. Therefore, the person would not appear to be under a great deal of stress, based on whatever method the psychologist uses to measure stress. The only cases of Malingering which this psychologist has heard about were cases in which students have feigned hearing losses during audiometric screenings. There exists a relatively efficient, "cut and dried" technique, known as Impedance Audiometry, to "discover" those students (Heidecker, personal communication, 1982).

According to the DSM III, the essential features of Hypochondriasis is an unrealistic interpretation of physical sign or sensations as abnormal. This leads to a preoccupation with the fear or belief of having a serious disease. There is no evidence of a physical disorder that can account for the physical signs or sensations, however, a coexisting physical disorder may be present. According to Thompson (1977), a child does not complain about a symptom such as a headache; instead, he or she worries about having a brain tumor. She went on to say that Hypochondriasis is more common in older children.

In the other Somatoform Disorders, as in the case of Hypochondriasis, there are no demonstrable organic findings or known physiological mechanism to account for the symptoms. Therefore, a physical condition does not exist in those disorders. They make up a broad category of disorders which includes Somatization Disorder, Conversion Disorder, Psychogenic Pain Disorder and Hypochondriasis.

The essential features of a Somatization Disorder, according to the DSM III, are "recurrent and multiple complaints of several years' duration for which medical attention has been sought but which are apparently not due to any physical disorder." The DSM III reported that 1% of females in the general population have this disorder while it is rarely diagnosed in males.

A disorder which might be confused with psychosomatic disorders, were it not for its rarity, is a Conversion Disorder. The essential feature, according to DSM III, is a loss of, or alteration in, physical functioning which suggests physical disorder (e.g., blindness or paralysis). The symptom is believed to be an expression of a psychological conflict.

In the case of Psychogenic Pain Disorder, the main feature is a complaint of pain in the absence of adequate physical findings. The DSM III differentiated this disorder from the pain associated with tension headaches. An alteration in physiological functioning would account for the pain associated with tension headaches. Therefore, tension headaches are considered psychosomatic disorders.

Finally, there are several physical conditions which are not regarded as psychosomatic, but which frequently have emotional implications (e.g., epilepsy and diabetes). For instance, a child who is diabetic might have a low sense of self-esteem because he or she cannot "be just like other children". In addition, children often receive secondary gains from physical illnesses. Adults generally feel sympathetic toward children who have serious illnesses and children will sometimes take advantage of this sympathy.

The initial step in the assessment of a child with a somatic complaint is to determine whether or not a physical condition exists. This early stage of the assessment process requires the involvement of a health professional. Thompson (1977) emphasized that determining the physical basis of any illness can only be done through referral to medical care. The school nurse is an invaluable resource to the school psychologist who gets a referral which says "Johnny has frequent stomachaches". Consultation between the psychologist and the nurse can change the somewhat vague "frequent stomachaches" into the following operational statement of the problem: "Johnny complains of stomachaches two or three times a week. He says that he has eaten. The abdomen is soft and palpable. Fever is absent and Johnny agrees to return to class after about 20 to 30 minutes in the school nurse's office." This statement of the presenting problem would be more helpful to the physician who makes the determination of whether or not a physical condition exists. In many cases, the school psychologist would not be involved in the assessment process until after the child has been seen by a physician.

The school psychologist's role in the assessment process is to determine the nature and severity of the psychological stress which is believed to be related to the somatic complaint. This will have a direct bearing on treatment.

The severity of a psychosomatic disorder can be viewed in terms of the number of symptoms in a particular child, the frequency of absences from school or the nature of the symptom from a medical point of view; e.g., migraine headaches are generally considered more severe than tension headaches. It would seem the most relevant to the practice of school psychology to view the severity of a psychosomatic disorder, and the severity of the underlying emotional factors, in terms of the degree to which the problem interferes with a child's learning, adjustment and interpersonal relationships. This conception of severity applies to emotional and behavior problems in general (Smith, 1979). The severity might be reflected by the frequency of absences from school; i.e., a high frequency of absences from school is likely to interfere with learning. This psychologist received a referral in which the student's headaches interfered with her adjustment and interpersonal relationships to a "mild" degree. This student avoided social functions, such as slumber parties and birthday parties, for fear that she might have a headache; however, she got along well with her peers at school.

Another way to judge severity is to consider the level of involvement of the intervention which would be required to improve the problem. The following are three different levels of intervention: (1) improvement can be achieved by consultation with the child's parents and/or teacher; (2) improvement would require a direct intervention with the child by the school psychologist; and (3) the child's emotional problems are so severe that improvement would require placement in a special classroom in addition to other treatment methods.

Vogt (1981) described a nine-year-old male that he treated for school phobia. The client had physical symptoms which consisted of stomach pain, nausea, difficulty swallowing and vomiting. He found those symptoms to be associated with school attendance or anticipation of school attendance. An interview between the school psychologist and the mother revealed that the student's fear of coming to school was "unprecedented, and developed suddenly without apparent cause." The student was seen by the family physician and a physical condition existed. The referral to the school psychologist was initiated by the parents and the school nurse. An interview with the parent and information from the school nurse were the assessment techniques in this particular case. The assessment revealed that the client's fear of school was the psychological stress which precipitated the physical symptoms. Subsequent to the assessment, the psychologist successfully reduced the client's physical symptoms and school phobia by treating the school phobia.

This psychologist has found sentence completion tasks to be useful instruments in the assessment of children with somatic complaints. A sentence completion task was administered to the nine-year-old female with stomach pains that was referred to earlier in the chapter. The following incomplete sentence stems and responses were significant: (1) "I worry about having a tummy ache"; (2) "I get nervous when I go somewhere"; (3) "My family does a lot for me when I feel sick"; and (4) "My worst habit is worrying about things." These responses suggested that this child was generally apprehensive. She worried about her physical well being and about separating from her mother. In addition, she received some secondary gains from her physical condition. The inferences which this psychologist made about the child from the sentence completion task were supported by information from other sources (e.g., parent interview).

Observations of behavior are valuable diagnostic tools. Somatic complaints are behaviors which have antecedents and consequences. For instance, the nine-year-old female complained of stomach pains in the morning when it was time to leave for school. The mother would then give her medication and send her to school. Subsequent to this, the mother would get a phone call from the school telling her that the child had complained of a stomachache. The mother would then go to the school and bring the child back home. The school bus coming into the driveway served as the antecedent or "signal" for the stomach pains to occur. The mother coming to get the child served as the consequences of the stomach pains (i.e., positive reinforcement).

This psychologist received one referral in which a family assessment, conducted by the school social worker, yielded diagnostic information which was essential in determining the nature of the psychosocial factors. The client was an eleven-year-old male with asthma and severe allergies. The presenting problem was that the client had an inordinate number of school absences because of his physical condition. The parents were frustrated, because they did not know whether the child's complaints justified keeping him home from school. An interview with the client revealed that the school environment was aversive for him. He had no friends and other children would pick on him. The social assessment revealed that the mother reinforced the child's absences from school because of her own dependency needs. The mother and child had a "symbiotic" relationship in which each was overly dependent on the other for meeting his or her own emotional needs. An interesting aspect of this case was that the two younger siblings started to have somatic complaints of a somewhat similar nature. The two younger siblings were adopted! This case illustrates the value of a team approach in the assessment of children with somatic complaints.

Absenteeism data can be valuable in the assessment of children with somatic complaints. A study conducted by Frerichs (1969) showed that there was a significant relationship between absence rate and number of psychosomatic symptoms in fifth and sixth grade children.

There are some formal assessment instruments which were designed to yield information related to somatic complaints in children and adolescents. The Piers-Harris Children's Self Concept Scale (Piers & Harris, 1969) contains some items which measure how a child feels about his or her own health and physical characteristics. The Child Behavior Checklist (Achenbach, 1978) was designed to obtain parents' reports of their children's problems in a standardized format. One of the subscales of this instrument is labeled Somatic Complaints. The Minnesota Multiphasic Personality Inventory (Hathaway &McKinley, 1967) contains a clinical scale which relates to physical symptoms and concern about bodily functions.

In summary, the assessment of children with somatic complaints involves: (1) the determination of whether or not a physical condition exists; (2) the determination of the nature and severity of the psychological factors. This process assesses the presence or absence of psychosomatic disorders. In addition, it rules out disorders which seem like the target behavior. The main purpose of assessment is to determine the most appropriate intervention to remediate the behavior. The next section of this chapter will discuss intervention techniques used in the treatment of children with psychosomatic disorders.

Intervention

The information which the school psychologist obtains from the assessment of a child with somatic complaints leads to the selection of an appropriate intervention. Most specifically, the nature and the severity of the child's problem(s) determine the type of intervention which is the most appropriate for the child. Millon (1969) cautioned against making the assumption that all children having ulcers or asthma, for example, suffer these

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disorders for psychogenic reasons. Psychologists should not attempt to convince a child that he or she may have emotional problems unless the psychologist has a sound reason for believing so. If the reasons for a child's physical condition are psychogenic then according to Millon (1969), therapeutic attention must be directed first to remedying the physical impairments which have occurred in conjunction with the disorder. This aspect of treatment is medical in nature, and would require the intervention of a health professional. Millon went on to say that when the physical disease process is under adequate control, attention may be turned to the management of psychological stress. There are about as many different treatment strategies to use with children who have psychosomatic disorders as there are orientations to psychological treatment in general. This section, hopefully, will help school psychologists consider a variety of alternatives for intervention. For an exhaustic review of the different treatment approaches, the author refers to the book Therapies for Psychosomatic Disorders in Children by Schaefer, et al., (1979). This section will review some interventions which were planned and carried out by school psychologists.

The psychosocial factors which accompany physical symptoms may be of a mild nature. In some of these cases the intervention may consist of suggestions given to parents and/or teachers that are involved with the child on a daily basis. This psychologist made the following recommendations to the parents of a nine-year-old female with stomach pains:

(1) It is recommended that Jane not receive any "fringe benefits" from her stomach pains if her dependence on her mother is to decrease. Requests for her mother to "come to the rescue" should be evaluated carefully. However, the person that Jane is with when she expresses a need for her mother's presence should be supportive, and give Jane the opportunity to talk about what is upsetting her and reassure her.

(2) Jane's concern about her physical condition has a degree of validity; i.e., there is a physical basis for her complaints. It is important that she deal with some of these concerns. Jane may need to become more "educated" about her physical condition. Sometimes a child's concern about his or her health may reflect a fear of the unknown.

(3) It is important that Jane be encouraged to express her feelings in a non-threatening manner. Coaxing her to talk about her feelings may put her under additional pressure.

This indirect intervention was chosen in this particular case because the client's problems were not severe at the time of the evaluation. Her frequency of leaving school with a stomachache was minimal. In addition, she got along well with her peers. The situation required, mainly, a change in the behavior of the mother; i.e., the mother needed to become less solicitous toward Jane. If intervention by consultation is unsuccessful, then the psychologist can work directly with the child.

Azrin and Wesolowski (1975) used positive practice and self-correction to modify psychogenic vomiting in a profoundly retarded female. They successfully used this intervention after relaxation and time-out were proven ineffective. Their procedure was carried out in the following manner:

(1) During the six weeks of training, whenever the client vomited, she was required to clean it up.

(2) The client was then required to conduct 15 practice trials in the appropriate manner of vomiting, i.e., she was taken to the toilet where she bent over the bowl with her mouth open, and was required to flush the toilet. She was then returned to the site of vomiting.

(3) The client was reminded every hour during the day that she should vomit only in the toilet and that she would have to clean up and practice if she vomited in any other location.

This procedure is most applicable to school psychologists who work with the trainably mentally handicapped, severely and profoundly mentally handicapped populations. Relaxation training and supportive counseling might be more appropriate interventions with children of normal intellectual ability. It is important to note that Azrin and Wesolowski used relaxation and time-out procedures before attempting to use self-correction. In other words, they made a prior attempt to use a less restrictive or less obtrusive intervention. It is important to make sure that the client has had an opportunity to respond to a less restrictive treatment before attempting to go on to a more restrictive treatment (Shepp, 1980). The severity of the behavior would help to determine the degree of restrictiveness of the intervention (i.e., occasional versus frequent vomiting).

This psychologist recommended family therapy in the case of an eleven-year-old male with asthma and allergies. The family dynamics, in this case, were an integral part of the symptoms and the psychological stress (refer to Assessment and Diagnostic Procedures section). More specifically, the nature of the mother-child relationship reinforced the child's somatic complaints, provided secondary gains, and increased his frequency of absence from school. Therefore, a change in the behavior of the parents would seem to be a necessary condition for a change in the child's behavior to occur. An intervention which entailed working with the child individually would have been insufficient. Kaminski (in Schaefer, et al., 1979) indicated that a number of investigators have looked to the parent-child relationship in cases where the child has asthma along with emotional problems. According to Kaminski, an asthmatic child's mother is simultaneously seductive, in the emotional sense, and rejecting.

Vogt (1981) used deep relaxation and imagery to successfully treat the underlying problems of a nine-year-old male child's physical symptoms. The client's presenting problem was school phobia while his symptoms were stomach pain, nausea, difficulty swallowing and vomiting. Seven sessions were conducted with the client by the school psychologist. The following is a description of the initial session:

> Dan was instructed to lie across two padded chairs in a darkened room. He was told to close his eyes and allow a "movie" depicting beautiful scenery to "play" in his mind, somewhat like watching TV. Beginning with his right hand and arm, all muscle groups were systematically relaxed, using the technique of having him sense his muscles for three seconds, then "notice or feel the difference". In between the relaxation of each major muscle group, the psychologist made the following suggestions to Dan: (1) "You will listen only to the sound of my voice," (2) "Your breathing is regular and you can feel the cool air coming in and the warm air going out," (3) "You do not have to feel relaxed, but you will." (pp. 79-80)

The second session was identical to the first one. During the third session, the client was given graded in vitro exposure to the task of going to school. In other words, the client was instructed, by the school psychologist, to imagine the successful execution of the chain of behaviors required to get him to school. The four remaining sessions dealt with the client's reluctance to ride the school bus and to eat breakfast. Vogt felt that the effectiveness of this technique was enhanced by the supportiveness of the client's home environment. In other words, part of the procedure entailed the client and his mother practicing the procedure at home. Vogt added that this procedure would have been less effective with a defensive client or in a less supportive environment. According to Hock, et al., (in Schaefer, et. al., 1979), relaxation training is the most effective technique for improving pulmonary functioning and reducing the frequency of attacks in asthmatics. Mason (1980) indicated that 85% of the migraine patients that he works with responded positively to stress-reduction practice. Mason's book, Guide to Stress-Reduction contains specific stress reduction techniques for specific ailments.

The treatment strategies which were described in this section represent three different levels of intervention: (1) intervention by consultation with significant others in the client's environment, (2) direct treatment of the client by the school psychologist; and (3) referral to an outside agency for family therapy which involved treatment of the child and significant others. The next section will discuss the monitoring methods used to determine whether or not the interventions are successful in alleviating the behavior.

Conclusions and Considerations

There are a variety of methods which can be used to monitor the effectiveness of a psychological intervention. Based on the responses to a questionnaire, monitoring methods used by school psychologists during and after the implementation of an intervention include: teacher reports, parent reports, reports by clients, behavior charts, school attendance reports, behavior checklists, medical reports, reports by school nurses and personality tests.

Interventions based on the principles of operant conditions offer the advantage of a "built-in" monitoring system. According to Sulzer and Mayer (1972), this type of monitoring system not only provides a means for evaluating whether a completed intervention has been successful but it also provides information about the direction in which an intervention is headed while it is in progress. Somatic complaints are behaviors which can be observed, treated and monitored. Some types of symptoms are observable (e.g., vomiting) while others are more or less inferred (e.g., tension headache). Those physical conditions which are inferred can be measured indirectly by observing their correlates (e.g., verbal complaints or frequency of school absences). Vogt (1981) observed, treated, and monitored school refusal for a child who showed several physical symptoms. The school phobia was the presenting problem. The child's physical symptoms decreased after his apprehensiveness about attending school was treated.

Some of the same methodology which is used by applied behavior analysis can be used to monitor other types of interventions. For example, the school psychologist can observe the frequency of school absence before, during and after relaxation training. The psychologist with a bent for research can even implement a "reversal" phase in which the relaxation training is temporarily discontinued to determine whether it is the treatment which is affecting the behavior. A strict behaviorist might view this as "having one's cake and eating it!" However, the point is that some type of on-going measurement can and should be used in conjunction with an intervention, regardless of the theoretical orientation of a particular school psychologist.

An alternative to continuous measurement would be for the psychologist to use some type of repeated measure. For example, the psychologist could administer a behavioral checklist to the teacher and/or parent before, during and after treatment. The psychologist would then look for some trend to occur among the repeated measures. Repeated measures can be used with behavioral checklists, personality tests, and standardized interviews.

The post intervention follow-up is probably the most important aspect of monitoring an intervention. This determines whether or not the effects of the intervention are general and long-lasting. According to Sulzer and Mayer (1972), the follow-up course should be planned in advance. In other words, they said that it is necessary for the school psychologist to select and use appropriate maintenance and generalization procedures. For example, Vogt (1981) instructed the client's parents on how to implement a relaxation procedure in the home environment.

It is also necessary that the effects of the intervention be maintained through natural consequences in the child's environment. In conclusion, Sulzer and Mayer (1982) had this to say about the post intervention follow-up:

> Periodic contacts with the persons who effect the individuals behavior, such as his teacher and parents, are advisable. Such contact can provide an opportunity for reinforcing the use of the appropriate procedures by these individuals, thereby further assuring the maintenance of the modified behavior. However, it is important not only for the environment to be structured to maintain the dependent behavior, but also for observational data on the student's behavior to be periodically collected so that it can be known for certain if the behavior is being maintained. (p. 284)

The psychological stress which children experience may manifest itself in many ways. How this stress manifests itself depends on: (1) the nature of the stress; (2) the constitutional vulnerabilities of the child; (3) the personality characteristics of the child, and (4) the characteristics of the child's environment. Some children may act out in response to stress while other children may withdraw from the environment. In other cases, children will internalize stress and develop physical symptoms. The important point, in all of these cases, is that the child is showing a reaction to psychological stress.

In cases where the child develops physical symptoms, the focus of the school psychologist should be on the psychological stress itself. The physical symptoms of the child are just symptoms, in the literal and in the figurative sense. Therefore, the assessment and treatment should focus on the psychological problems of the child. However, school psychologists need to be concerned about the physical symptoms inasmuch as these symptoms are a reflection of the emotional state of affairs with a particular child.

The intervention which is chosen by the school psychologist should be tailored to meet the needs of the individual child. This applies to children with psychosomatic disorders as well as to children with emotional problems in general. Some children may respond best to relaxation training while others may respond best to behavior therapy. In other cases, a regimen which includes supportive counseling or family counseling may best meet the needs of the child.

Finally, not all children with somatic complaints have psychosomatic disorders. For example, some children may be malingering. However, this would not mitigate the school psychologist's responsibility. Children who malinger are attempting to meet their own psychological needs and may have emotional problems.

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Truancy
Out of Sight, But Never Mind

Kerry T. Hinkle

Abstract: Truancy is like pornography, easy to recognize but hard to define. As a consequence, it seems essential that in dealing with attendance related issues that the practitioner be able to differentiate school phobia from truancy, from a long standing familial pattern of maladaptive behavior (way of life), and from a transient stress situation within the school itself. To aid in this dilemma an overview of the historical development, measurement, types and consequences of student absenteeism is explored. Furthermore, theoretical and intervention strategies are suggested.

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Introduction

In any communication there are two messages, the overt and the covert. In the same sense, truancy must be examined within the broader context of school absenteeism. School absenteeism can be viewed as one of the most provocative issues confronting modern education. In spite of efforts to contain its growth, absence from school continues at an alarming rate (NASSP, 1975). Since the enactment of public education mandates during the nineteenth century, American educators have become increasingly concerned with the attendance patterns of various student populations. In 1975 and again in 1978 the National Association of Secondary School Principals focused considerable attention on the issue of student absenteeism. Referring to absenteeism as "the problem that won't go away," organization members voted attendance as the most troublesome day-to-day problem in the administration of secondary schools (NASSP, 1978).

On a national level, as many as two and a half million students are absent each school day (Brimm, Forgety & Sadler, 1978). Labeled as the "new illiterates," high absentee students are estimated by Chicago school personnel to number as many as 12,000 pupils (Chicago Tribune, Nov. 18, 1979). While this figure represents only two percent of the total Chicago student enrollment, it has been found that such figures may be grossly underestimating daily absenteeism.

While the exact figure may never be known, there appears to be sufficient evidence to suggest that a silent epidemic is spreading through American schools, and although many studies discuss the traits of absentee students (e.g., truancy, phobia, delinquency), few have addressed absenteeism. It is the contention of this paper that absenteeism is not "a problem" but many, and that in order to provide an explanation and/or intervention the psychologist needs to know what type of absence behavior he/she is confronting.

Historical Perspective of School Absenteeism

In America the concept of absenteeism has evolved as the result of various religious, economic and social conditions. Early reference to compulsory school attendance can be traced to basic Christian ideology, as outlined in the Satan Deluder Act passed by the then English colony of Massachusetts in 1642. While the primary intent of this law was to encourage religious study, it also served as a moral foundation upon which the importance of regular school attendance was established.

Since religious instruction represented the earliest form of organized public education, it is not surprising that shortly after such laws as the Satan Deluder, legislation requiring towns and townships to establish grammar schools were passed. As a result of America's firm commitment to basic religious and educational principles, student absenteeism has historically been viewed as a negative behavior, one which carries both religious as well as secular implications.

While the roots of school attendance go deep, the importance of strict attendance has been of relative concern. In our early agrarian society children were needed to assist with crops, and since the heat of the summer made classwork difficult, the traditional nine month school year was conceived. During the nineteenth century the issue of school attendance again emerged, not as a religious concept but as a by-product of economic conditions. As America grew from an agrarian to an industrial state, so did the use of child labor. The American economic environment at the turn of the century was marked by high unemployment and tight money. As a result, considerable pressure was mounted for labor reform and the removal of children from the labor force. Such conditions provided the impetus for renewed governmental interest in public school attendance. This economically inspired concern was later transformed into specific legislative action. Among the most significant pieces of this legislation were the Child Labor Laws (1836-1916). Enacted on a state by state basis, these laws not only eliminated the use of children from the general labor market, but also gave governmental sanction to the concept of public education. Thus, students who were in attendance were considered industrious, productive, conscientious and moral.

As an outgrowth of governmental regulations pertaining to the use of child labor, states began to enact Compulsory Education Laws (1852-1918), not only keeping children out of the work place, but also providing an alternative to leaving children at home--a thought which certainly would not have been popular with the voters at the time. Eventually such legislation not only defined the role of the state in acting on behalf of the parent, but also marked the end of home instruction as a state recognized form of public education. In support of compulsory education mandates, a multitude of laws have developed, the general purpose of which has been to encourage and otherwise enforce regular school attendance (e.g., truancy laws). Unlike their use today, attendance figures were initially utilized as a measure of the public's acceptance of state educational regulations.

As mentioned earlier, in recent years American educators have become increasingly concerned with the attendance patterns of various school populations. Various individuals (Bloom, 1965; Schreiber, 1964), professional associations (National Education Association, 1964; National Association of Secondary School Principals, 1975), and governmental agencies (Department of Health, Education and Welfare, Office of Education, 1965) have attempted to publicize the social significance and/or consequences of absenteeism. In response, local school authorities have developed policies and procedures designed to supplement existing legislation concerning school attendance. Such regulations exist in all school districts and are designed to promote the virtues of positive school attendance, as well as, lessen the perceived consequences of absenteeism.

In conclusion, one can see from a historical review that interest in student absenteeism has evolved from more than simply students being out of school. Yet, in spite of continued concern, surprisingly little is actually known about this perplexing problem. Subsequently, the topic of school absenteeism is viewed as an enigma, a problem as yet too complex, too diverse and too elusive to be understood.

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Absenteeism Defined

If one were to adopt the most commonly cited definition of absenteeism it would be: "Absenteeism is a problem." While inadvertently capturing the complexity of this issue, this statement does little to forward the conceptualization of school absenteeism. In this notion, student absenteeism is similar to pornography--easy to recognize but difficult to define.

As a philosophical issue, school absence can be viewed as contradictory to the basic ideals outlined in democratic ideology. That is, according to democratic doctrine, it is the responsibility of the individual to attend or participate in community activities which have as their goal the improvement of the general welfare of the state. Since an enlightened citizenry can be viewed as a contribution to the needs of the community, and learning is the perceived goal of attending, absenteeism can be viewed as counterproductive. In short, not only is absenteeism seen as a rejection of school but also may indirectly, at least in a philosophical sense, represent the person's unwillingness to adhere to the legislative needs and welfare of the community.

Since it is the legal duty of parents and guardians to see that their children are enrolled in public school, school absenteeism as defined by state mandates requires both enrollment and attendance. Furthermore, since the appropriation of state funds for educational programming is based on school enrollment and attendance figures, the state has given the school the responsibility of recording and reporting non-attendance. Therefore, in an administrative sense, absenteeism from school can be defined in terms of lost operating expense, cost incurred from the tabulation of data and the investigation of daily absences.

At the school level, absenteeism can be defined in terms of anticipated academic and social loss. Since consistent attendance is considered vital to educational development (e.g., basic skills), absenteeism is seen as interfering with the benefits arising from the daily exchange between the student and his/her teacher. Therefore, from an educational perspective, both the child and the school are viewed as "losers" as the result of absenteeism.

At the student level, absenteeism may be interpreted as an adjustment and satisfaction index; where, as a result of individual, family or community circumstances, school absenteeism may be defined in terms of the individual's response to psychological and sociological stress.

As you see, differing definitions make it hard to conceptualize student absenteeism. The lack of a concise, universal definition is further complicated by inconsistencies found in the measurement of absenteeism.

Normal Absenteeism

Perhaps one of the most unique aspects of the school absenteeism issue is a lack of consensus as to what constitutes excessive absence. In this behalf, most school districts rely upon the Average Daily Attendance figure as a mean estimate of normal attendance. The Average Daily Attendance statistic represents a composite figure, calculated by totaling days absent for a given school year and dividing by the total student body. However, in experimental and quasi-experimental studies conducted to measure the response of absenteeism to various intervention strategies, investigators frequently fail to establish a level of absenteeism which, beyond experimental group membership, has been shown to represent a level of significance. In addition, most researchers employ a very narrow frequency/duration ratio in establishing study groups. Of the studies sampled for this review, all of which were conducted over the past decade, the longest period used to identify absentee students was one school year, with the majority of studies using from eight weeks to one semester (Berganza & Anders, 1978; Brooks, 1975; Cordell, 1973; Fine, 1974; Hagen, 1975; Melor, Perkins & Reeves, 1975; Morgan, 1975; Stringer, 1973; Taylor & Jackson, 1974).

While short term statistics may be useful in describing group behavior, their reliability as a predictor on an individual level is questionable; a fact supported by Berganza and Anders (1978) who suggest that more false positives are present when subjects are selected from attendance records for one year alone. They concluded that attendance behavior examined over several years is required to delineate significant absentee patterns.

Absenteeism has been associated with poor achievement, low grades and numerous other educational ills. Since such difficulties are developmental in nature, it seems logical to study the longitudinal rate of absenteeism if one hopes to predict and prevent such negative consequences. Studies conducted to investigate the longitudinal pattern of student absenteeism have been few in number and post hoc in nature (Karweit, 1973; Lavato, 1973; Nelson, 1972). In addition, such studies have focused primarily on upper grade students, the prevailing hypothesis being that older children have more autonomy in making the decision on attending school (Needels & Stallings, 1975), which omit most junior high and high school dropout populations.

In conducting research on the longitudinal attendance patterns of an eighth grade population this author found that while the Average Daily Attendance figure serves as a mean estimate of total school absenteeism (K through 12th grade) it does not predict the individual's "normal" rate of absenteeism from year to year. Rather it was found that "normal" attendance is marked by yearly cycles of high and low attendance. The implication of this finding can be recognized when one realizes that administrators, researchers and pupil personnel workers establish policies and procedures based upon the assumption that the ADA figures accurately measure an individual student's expected rate of absenteeism. As a consequence, efforts to correct transitionally high, yet normal, absenteeism may have done more to complicate the situation than correct it. That is, too much time and effort may be spent trying to correct a condition which in reality may be nothing more than normal patterns of attendance.

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Measuring Absenteeism

While counting absent students may seem a simple matter, a closer inspection finds this task to be as complex as defining absenteeism itself. To explain the intricate nature of measuring absenteeism a brief contrast of the procedures used by industry and education seems helpful.

Industry has long been interested in the study of employee absenteeism (Brayfiend & Crokett, 1955; Herzbert, Mauser, Peterson & Capwell, 1957; Vroom, 1964). Consequently, as many as 41 different indices of absenteeism have been noted (Gaudel, 1963). While many have questionable reliability (Muchinsky, 1977), the number serves to reflect the concern over lost production and service time, benefits (e.g., insurance, pensions, taxes) and underutilization of facilities (Kuzmits, 1979). Through the use of statistical comparisons made possible by the application of such indices, theories have been generated which provide a basis for understanding, predicting and controlling absenteeism. In general, absenteeism has been approached by industry as an independent variable which, when subjected to scientific investigation and statistical manipulation, can result in information leading to intervention.

On the other hand, in the educational sector, far fewer indices of absenteeism have been developed; an interesting fact in light of the highly publicized concern for school absenteeism. With few exceptions, local, state and national educational statistics are confined to two broad categories - Average Daily Attendance and Average Daily Membership. It is these figures, when computed as a mean frequency of days attended by total student membership (K-12), that are translated into figures aimed at gauging "normal" absenteeism. This lack of refinement in measurement has resulted in little, if any, theoretical basis for understanding either absenteeism or the absentee student. Yet, in spite of little empirical data, a multitude of yet-to-be validated administrative, legislative and therapeutic techniques continue to be used in coping with student absenteeism.

As suggested earlier, schools throughout the United States are directed by state law or state departments of public instruction to collect absenteeism data. While told to gather such information, what method of collection is to be used and what, beyond a state report, is to be done with the final results are left up to the individual school. Since no uniform state directive is given which specifies who should collect attendance data, appointments for this task are generally made at the local level. As a consequence, the responsiblity for recording and tabulating attendance information may rest with the classroom teacher, building administrator, counselor or other available personnel. Even more inconsistent than who reports absences is what method is used to count absenteeism. If defined temporally absenteeism may be reported hourly, daily, or weekly. As a result, significant variability in attendance data is noted between as well as within individual school districts resulting in questionable reliability.

Problems in measuring student absenteeism are further complicated by the multidimensional nature of non-attendance. As described by Muchinsky (1969), the locus of control of the condition does not simply rest with one individual, but many. As in the case of vacation absenteeism, non-attendance may represent a legitimate and bi-lateral agreed upon absence. A second dimension to absenteeism can be seen in situations where, as in the case of illness or injury, the absence is beyond the control of either the student or the school. Finally, when students participate in school activities the responsibility of their absence rests with the school. Therefore, failure to note temporal conditions, differentiating between voluntary vs. involuntary as well as excused vs. unexcused absenteeism, adds to the perplexity of the attendance issue.

According to Meyer, et al. (1971), school attendance data are often inflated for at least two reasons. First, teachers and students alike tend to protect absentee students from the negative consequences of being listed as absent. Second, school records may underestimate absenteeism in order to sustain the school resources, which are based on measures of average daily attendance. Often school districts simply total all absences together. Therefore, there is no accurate way to separate excused absences, illness and like absences, and unexcused absences. As noted in Karweit (1973), the accuracy of attendance statistics is in doubt due to the difficulty in maintaining the data, as well as the particular interest individuals have in biasing the information. In short, in spite of automation, orientation meetings, written instructions, and much effort, there will always be a large number of errors in recording attendance data.

In conclusion, what may seem to be a simple matter of counting absent students proves to be a much more complicated undertaking. The situation is dramatically demonstrated by the methodological hodgepodge used in reporting and recording school absenteeism. This lack of uniformity not only adds to the complexity of the attendance issue but often leads to diverse conclusions which make cross study comparisons difficult if not impossible.

A-Type and B-Type Absenteeism

To understand the breadth of the absenteeism issue, a distinction needs to be drawn between voluntary and unavoidable absence. In discussing employee absenteeism, Chadwick-Jones, Brown & Nicholson (1973) classify absenteeism into two distinct categories: A-Type and B-Type.

Applying this same dichotomy to the school setting, A-Type would represent that portion of absenteeism that is unavoidable, the causes of which are explicit and may include: personal illness, bereavement, illness in the family, inclement weather, or other school sanctioned leave. On the other hand, B-Type absence involves some exercise of choice; voluntary absence for which the cause is implicit. Examples of B-Type might include: truancy, tardiness, classcutting, or other school absence defined as illegitimate.

Because most attendance information fails to differentiate between A-Type and B-Type absenteeism, two categories of specialized data need to be collected. First, the overall school absence figures which provide information as to the percentage of students absent on a given day; and, second the statistics showing percentages of A-Type and B-Type absence.

While some urban schools have reported that on any given day more students are absent than present (New York Times, Feb. 2, 1970), a figure of 30% (Teachman, 1979; NASSP, 1975) would seem to be a realistic projection of the overall daily absenteeism rate for most urban attendance centers. This figure will have to be adjusted downward for rural school districts, as well as for comparison of elementary and secondary schools. The next question to be asked is what proportion of this 30% is represented by A-Type (unavoidable) and B-Type (voluntary) absence.

As noted earlier, A-Type absence constitutes an unavoidable circumstance such as illness or bereavement. While the percentage has changed over the years (NASSP, 1975), a 4 to 5% figure is considered by most medical officials as a "normal" absentee rate for reasons of health (Rankin, 1961). Additional A-Type absences such as family illness, bereavement, etc., are suggested as increasing the overall figure by 2% (Rankin, 1961). In summary, based upon available statistics, A-Type absence would account for approximately 7% of the overall figure, leaving 23% attributable to B-Type absence.

Accounting for the 23% figure of B-Type absences, according to available data, truancy represents from 3.3% (Bransby, 1951) to as high as 6% (Tennert, 1971) of the variance, depending upon the definition of truancy. What seems evident by such figures, is that of the B-Type absenteeism, the truant is not the most typical irregular attender. In short, from the evidence available, it seems that only a small portion of the overall absenteeism figure (30%) can be explained by A-Type absences (7%), suggesting that the major portion of student absenteeism (23%) is of a voluntary B-Type. In addition, only a fourth of the B-Type absence appears attributable to truancy.

Absence-Prone and Absence-Free Students

According to Nicholson, Brown and Chadwick-Jones (1976), comparisons of absence-prone and absence-free individuals is needed before much can be said about the causes of absenteeism. Unfortunately, most studies use a one semester attendance rate as criteria for membership in comparative study groups.

Greene (1963) compared "best" attenders with the "worst" attenders from two metropolitan high schools on a selected battery of psychological tests and miscellaneous demographic data. Results suggested that good attendance was associated with: comparatively high intelligence quotients, comparatively high grades in English, comparatively high socio-economic status, and comparatively favorable parental opinions of school. In a similar study, Mullin (1955) compared excellent, average, and poor attenders of an urban high school on the basis of attendance records, intelligence, ratio of promotion, scholastic achievement, socio-economic status, attitude toward home and school, personality traits and temperament. Distinct differences were: superior attenders had better attendance history, school satisfaction index, and socio-economic status; while average attenders rated neither so high as superior attenders nor so low as poor attenders in school attendance, grade average, teacher ratings, and school progress. The desire to withdraw was more evident in average attenders than superior attenders, but less evident than in poor attenders. Interestingly, average attenders surpassed poor and superior attenders in fewer feelings of personal insecurity and social inadequacy, suggesting they are further along in social adjustment and are not inclined to limit their activities to home and school. Factors associated with poor attendance included: lowest group intelligence scores, lowest grade average and dissatisfaction with school.

A more contemporary study (Hinkle, 1980) utilizing a frequency/duration index in identifying High, Normal and Low Absentees, compared intelligence, basic skills, retentions, mobility, and G.P.A. of an eighth grade population. While statistically significant differences were noted among the three groups, findings would not suggest that a significant "functional" difference exists which would recommend the need for alternatives in educational programming for any of the three absenteeism groups. Thus, from the evidence so far, it seems that only a small proportion of the variance between absence-prone and absence-free populations is explained by differences in groups of children.

In conclusion, from a review of studies comparing absence-prone and absence-free students, two important implications seem evident. First, normal absenteeism-that which fluctuates in frequency over time, year to year-may be important for positive personal and social adjustment. Thus, absence may be viewed as an index of homeostasis - the general level of functioning characteristic of the healthy organism. Second, from the evidence so far, it seems that only a small proportion of the variance between absence-prone and absence-free populations is explained by clear differences in groups of children.

The Perceived Consequences of Absenteeism

Much concern has been voiced about the school's failure to provide students with the skills necessary to face community living. High rates of absenteeism have been cited as one cause for the persistent decline in academic skills (Wirtz, 1977; Chicago Tribune, November 18, 1979). Since the purpose of compulsory education is to develop an enlightened citizenry, absenteeism may represent a different set of difficulties for the student, school and society at large.

The Student and Absenteeism

Birman and Natriello (1978) suggest that for the individual student absenteeism can lead to deficiencies in acquiring knowledge and credentials.

One area which has often been looked at in association with absenteeism is achievement. In fact, the relationship between student absenteeism and school achievement has long been debated. In 1940, Finch and Nemzek reviewed 21 studies carried out between 1909 and 1936 relating attendance and achievement in secondary schools. While suggesting a weak yet positive relationship the authors concluded that the association between achievement and absenteeism was difficult to categorize. In a more contemporary review of the literature, Nelson (1972) noted the significant variety of results linking absenteeism and achievement, stating that the direction of effect was unclear. Still more recent information reported by the Iowa Department of Public Instruction (1978), stated that an analysis of 24 studies dating back to 1925 found an even split between those studies showing a relationship between absence and achievement and those that did not.

In sampling studies concerned with achievement and attendance conducted during the past decade, a probable cause for such diverse findings was revealed. It was found that among these studies the majority of investigators used a variety of standardized tests designed to measure specific skill areas as indices of academic achievement (Bayne, 1977; Fogelman, 1979; Hagen, 1975; Knoll, 1977; Kutcher. 1977; Pakipala, 1974; Williams, 1975). Since these studies appear as representative of that research concerned with the impact absenteeism has upon student achievement, the fact that in each case only one of a wide variety of achievement measures was used, not only suggests cautious generalization of results but makes cross-study comparisons of questionable value.

A review of the literature would suggest the need for additional study and that, based upon accumulated evidence, we can only conclude that attendance may be at least a minimal factor related to learning (Bergle, 1971; David, 1974; Pelavin & David, 1977; Wiley, 1973; Wiley & Harnishberger, 1974).

Perhaps even more important than its impact on achievement, high absenteeism may prevent some students from obtaining the credentials that are considered necessary for future occupational opportunities. However, there appears to be qualitative differences among absence-prone students that place some "at risk" while others circumvent grade and credentialing difficulties. Such a case was noted by Stringer (1973), where the high school principal in one district discovered that of 14 students who had been absent more than 20 days that year, five had no failing marks and the other nine together had only 20 semester failures out of the 90 that they might have had.

In speaking to the issue of In-School Truancy (classcutting), Treachman (1979) noted that it was not unusual for students who had skipped 20 to 40 days to ask the teacher what he/she would have to do to make up the work. Since many of the in-school truants were viewed by the teachers as "good kids" it was common to give the student make-up assignments that allowed them to pass sometimes with high grades.

A second issue that impacts on credentialing is the development of alternative educational programs. In the late 60s and early 70s many educators called for the reorganization of schools. Many became active in the alternative schools movement (Deal & Nolan, 1979). The opportunities such programs provide for high school completion through G.E.D. (General Education Diploma) or high school equivalence diplomas, at least in urban areas, has significantly lowered the credentialing risk.

The School and Absenteeism

Absences are as much a fact of school as work. However, while student absenteeism continues to increase, industrial absenteeism rates have changed little over the past 20 years (NASSP, 1978). Although it is evident that personality, ability and family background may predispose some absence-prone students, to explain the increase in student absenteeism as being something wrong only with the student and not with school seems untenable.

In discussing why some schools have higher rates of absenteeism than others, Wright (1978) outlined the relationship between absenteeism and school curriculum, school organization and school staff.

In the curriculum area, it was found that those schools offering more music classes had higher attendance. Schools that had higher percentages of students enrolled in work programs for credit also had higher attendance. However, those schools that restricted their electives rather than utilizing open enrollment from all grades experienced poorer attendance. Finally, those schools that offered a higher percentage of year-long courses had worse attendance than those with a higher proportion of nine-week courses.

The structural or organizational arrangements within the school may also impact upon attendance. Since the size of the school correlates with attendance (Wright, 1978), alienation has been offered as an explanation for high rates of absenteeism (Bronfenbrenner, 1973; Coleman, et al., 1974). Students disaffection with school has been associated with concerns expressed in relationship to "irrelevant" curriculums; where, were it not for the school as a place to meet friends, even greater absenteeism might be evidenced.

Finally, absenteeism was related to staff characteristics. Wright (1978), noted that, at least for urban schools, the younger the staff the lower the absenteeism rate. He also suggested that pupil-teacher ratio seems to affect attendance; where there were more teachers per student there was better attendance.

As noted previously, some school administrators may be concerned with absenteeism since the size of the school budget is often calculated on the basis of average daily attendance. While most educators seem genuinely concerned with rising absenteeism, it can also be seen as a solution to certain problems. As noted by Birman and Natriello (1978), absenteeism may help relieve overcrowding, as well as, ensure lower rates of behavior problems. Since many absent-prone students are perceived as a negative influence while they are in school, many "phantom" students are officially enrolled but unofficially absent. The role absenteeism may play in alleviating school problems can be evidenced by the fact that school administrators often use suspension and expulsion as disciplinary action in attendance cases (Children's Defense Fund, 1974).

Society and Absenteeism

Absenteeism is of immediate concern because of its association with delinquency and crime. This relationship between non-attendance, or more notably truancy, and delinquency has been historically established (Glueck, 1934; Healy & Bronner, 1926; Sullenger, 1930; Wilson, 1960). While there seems to be disagreement as to whether absenteeism causes delinquency or vice versa, it is evident that when large numbers of adolescents are left with nothing constructive to occupy their time absenteeism and delinquency increase.

Birman and Natriello (1978) noted that from the societal perspective absenteeism presents both short-term and long-term problems. The immediate being delinquency and crime, while the future can be seen in the failure of such students to acquire the basic competencies necessary for productive adult life.

In reviewing the individual, school and social aspects of absenteeism, it may seem that the only purpose served has been to further confuse an already complex issue. If the reader finds him/herself agreeing with this observation, then this article has served its purpose thus far. It is my contention that in order to recognize, diagnose and treat absenteeism related disorders, the practitioner must first have a reasonable understanding of absenteeism in general and a knowledge of children for whom absenteeism may place at-risk for later difficulties.

Theories of Absenteeism

In his report of Human Resource Management of Employee Absenteeism, Muchinsky (1979) reviewed several theories aimed at explaining absenteeism. While it is certainly true that scientists of differing persuasions tend to view absenteeism as a manifestation of divergent phenomenon, and while the issues of industrial and school absenteeism may seem dissimilar, the basic theoretical concepts used to explain absence behavior seem alike. As such, while recognizing the considerable overlap between them, three classes of theories, adopted from the industrial sector, are presented here in explaining student absenteeism.

Decision Theories

This theorem portrays absence as a rational behavior, determined by the individual subjective evaluation of the cost and benefits associated with attendance or non-attendance. This theory assumes that people consciously evaluate various behavioral choices and select those with the greater expected utility (Vroom, 1964). Accordingly, students may simply choose to or not to attend school on the day of a test dependent upon the cost benefit. Not surprisingly, student absenteeism tends to decline as the number of test days increase.

Following this line of thinking, Meyer, et al. (1971), argued that student absenteeism is partially the school's responsibility because it has failed to recognize the students as adults or "citizens" who have legitimate needs and interests which can be fulfilled outside the educational system. Working vs. going to school has always been a cause of student absenteeism. While work release and enrichment programs are offered in some large school districts, and then only to the "better students", many smaller districts fail to consider outside educational experiences. As a consequence, increased absenteeism and dropout rates result.

A similar rational perspective is offered by Dornbusch (1974). Dornbusch states that social institutions, in this case the schools and job market, are no longer related. Previously, a high school diploma was a pre-requisite for an entree into the labor force, where skills taught in school were viewed as useful for employment. However, due to changes in technology and demands for specialization in labor, this is no longer the case. The shrinking labor market, at the same time as the expansion of minimum educational credentials, seem to support this argument. Because of this phenomena increases in school attendance, particularly at the secondary level, may reflect the low articulation between school and the workplace.

This same image of school to being out of step with other institutions may also be witnessed in the small but growing faction of parents who oppose public schools and try to educate their children at home. In such cases as these, learning is often perceived as stretching over a life time and includes an exposure to all institutions. Therefore, often because of the school's limited resources, the decision is made to elect not to send the child to school. In his book Future Shock, Alvin Toffler (1970) commented on the future of compulsory education; suggesting that as the school grows more anarchistic the courts will find themselves deluged with cases attacking compulsory attendance. The result being a short and limited swing back to education in the home.

In general, decision theories are interactive in nature and depict absence behavior not as problematic but rather as a rational expression of free choice. In this light, absenteeism may be viewed as a social index the magnitude of which, despite expressions of distress by school authorities, may reflect the increasing gap between individual and societal needs and the school's ability to recognize, adjust and fulfill such needs. Finally, given the noted stability in A-Type (involuntary) absenteeism, decision theories may help to explain the growing rate of B-Type (voluntary) absenteeism in American schools.

Pain-Avoidance Theories

This class of theories proposes that absence is used as a means of avoiding stress. The child protects him/herself from intense anxiety by not attending school (Schaefer & Milman, 1978). This type of school refusal is generally seen as acute in nature (Kennedy, 1965). Prominent among the avoidance hypotheses are various psychosomatic theories. Such theorems view school absence in association with physical illness of proven or presumed psychogenic origin. As a consequence, unsatisfied emotional needs might be translated into sore throats, laryngitis, compulsive throat clearing, wheezing, feeling faint, headaches and nausea (Des Moines Register, December 2, 1979). Often psychodymanic principles underlie these psychophysiological theories.

Unlike the psychodynamic theorists, the behaviorist is interested only in the specific behaviors which a student exhibits and the environmental factors which may reward (reinforce) his/her behavior. Subsequently, the causes of absenteeism rooted in early childhood are less important than reinforcement contingencies which lead to continued absence from school (Birman & Natriello, 1978). Accordingly, students fail to attend school because staying home is more rewarding.

In summary, the pain-avoidance theories view absenteeism as a sign of psychopathology or learned behavior. This area of absenteeism tends to be investigated by medical and behavioral scientists. Although such topics as separation anxiety and school phobia have received considerable attention, given the magnitude of school absenteeism, their impact seems quite minimal.

Adjustment Theories

The dynamics of absenteeism according to this postulate are contributable to social and psychological maladjustment. This theorem envisions a chronic pattern of school and home avoidance. The "truant" is more often characterized by adjustment theories. Historically, state statutes dictated the use of investigative or punitive interventions rather than a remedial role in dealing with truancy.

The most common explanations offered for this type of absenteeism is addressed by both psychodynamic and behavioral theory. From the psychodynamic perspective, chronic absence from school is one small part of a "syndrome" of nonconformist attitudes and behavior, rebellion against authority figures and poor superego controls (Birman & Natriello, 1978). This paradigm was used as an explanation of juvenile delinquency in the 1950s (Cohen, 1955; Glueck & Glueck, 1952). In general, the psychodynamic thesis suggests that factors which predispose students to absenteeism exist before he/she enters school. In contrast, the more contemporary behavioral approach envisions the student's failure to attend school as being the result of outside-of-school activities being more rewarding.

For whatever reason, although the majority of children may have difficulties with schooling, it is only the minority who fail to attend regularly (Tennent, 1971). While the magnitude of the school absenteeism issue may be an artifact of our measurement and definition, in practical terms sufficient evidence exists that absenteeism behavior, often in combination with other school and social behaviors, serves to identify or predict children at-risk as adults.

Children at Risk

In 1961 Lee Robins, in her follow-up study of more than 500 adults who 30 years earlier had been patients at child guidance clinics, found that "school failure and truancy" in childhood were significant predictors of maladjustment in adulthood. A similar finding was made by Tyrer and Tyrer (1974), concluding that children identified as attendance problems were at-risk in terms of possible psychiatric problems later in life. Therefore, it is important to identify instances where absenteeism may denote a serious problem. With this in mind, three broad categories of attendance related conditions: school phobia, truancy and the way of life absentee will be outlined.

School Phobia

The phobic child can be recognized as having an irrational fear of some aspect of school which leads to an inability to attend school (Nice, 1968). The rate of occurrence of school phobia is said to be 17 cases per 1,000 school children (Kennedy, 1965). Described as good achievers, school phobic children are usually sensitive and of average or better intelligence (Hirst, 1963; Lindgren, 1956; Misseldine, 1966). In spite of a desire to avoid school, while there, this child may be quite happy and academically successful (Millman & Schaefer, 1980). Often retarded children perceive school as a place where he/she meets with failure and ridicule, resulting in school phobic behavior (Fuerst, 1969). In other cases, pseudo-phobia exists in which the child's refusal constitutes a power struggle in which fear is simulated and where the child's behavior represents an attempt to manipulate a situation to his/her advantage (Hirst, 1963; Hinkle, 1979).

Cases of school phobia are often characterized by physical symptoms in the absence of organic pathology. While both sexes are affected, factors such as age and birth order (youngest and oldest) are viewed as important determinents while socio-economic status, religion, ethnic group are not related to incidence (Berg, 1972; Miller, 1972). In addition, school phobia is not seen in terms of a familial pattern.

As outlined by Kennedy (1965), two distinct forms of school phobia can be identified. Type-1, commonly experienced by younger children, is often acute in nature and appears following illness, weekends, holidays or vacations (Tyrer & Tyrer, 1974; Powers, et al., 1970). In contrast, Type-2 frequently appears as refusal to attend school in adolescence and is suggestive of a more psychopathological condition (Chotiner & Forrest, 1974; Collidge, et al., 1960).

In summary, the school phobic child's behavior includes anxiety, fear and somatic complaints. School absenteeism is seen as the child's reluctance to separate from a symbiotic parent-child relationship. Type-1 and Type-2 school phobia should be clearly delineated and require varying intervention strategies.

Truancy

Like school phobia, truancy has a relatively low rate of probability. However, unlike school phobia, truancy does not include the aspect of irrational fear and is generally defined as any absence from school without the knowledge and consent of parents, guardians or school officials (Washington, 1973). Not only does the truant avoid school, but he/she, by definition, often remains away from home as well. Such behavior may also be seen in the context of a familial pattern.

Today's truant, according to Morris (1972), is unlike any other in history. No longer does he/she spend his/her time going to a ball game or taking a dip in the old swimming hole, but rather is likely to be involved in crime. The "new" truant has more money and mobility and is perceived as being upset with the world in general; if not his social position relative to that world.

Today's truant is viewed as a product of our frantic modern society (Morris, 1972) and is less inclined to accept the tenets of his/her youth culture. Associated behaviors often include significant conduct disturbance both in and out of school (DSM III, 1980).

In summary, the truant is a child who avoids both school and home, and whose associated behavior may include conduct and criminal activities. The truant's school avoidant behavior is motivated by secondary gain rather than an irrational fear of going to school or leaving home. Such youth are at-risk in terms of possible drop-out and social/emotional conflicts.

The Way of Life Absentee

Both the school phobic and truant child's attendance behavior depicts a measurable and significant deviation from the norm. Thus, due to the frequency, intensity and duration of the behavior, the public and particularly the school has become quite familiar with the school phobic and truant child.

However, the way of life absentee, in this author's opinion, is the least recognized child at-risk.

Defined as a chronic absentee (Hinkle, 1979), further observation has resulted in the adoption of the term way of life absentee. This group of absence prone children appear to constitute a large portion of the B-Type absenteeism population. The way of life absentee, as defined here, displays a longitudinal (duration) pattern of absenteeism which deviates signficantly from the established rate (frequency) of absence for a given school and community.

Behaviorally, absenteeism can be defined as a "non-event," one which cannot be observed. Because of this fact, the way of life absentee's behavior often goes unnoticed due to its low visibility. Such children, as described by Stringer (1973), are not defiant or unruly, they do not fight or bully others and any symptoms they may have are of the "no-protest" type, easily escaping attention. They simply drift, almost unnoticed, from one grade to the next.

Suddenly, as it may seem to the way of life absentee, they find themselves in junior high school, moving hourly from room to room and teacher to teacher; frightened, confused and terribly ill-prepared to cope. Habituated over 10 to 12 years of retreating from stress such children find it difficult if not impossible to reverse their patterns. In general, they fail to develop the psychosocial resources as healthier children do. By the time they enter junior high the by-now-ingrained habit of absenteeism and social isolation makes rescue efforts overwhelming difficult.

Given the subtleness of the way of life absentee's behavior, little is actually know about the determinants influencing such development. However, it does appear, based upon limited observation and research (Hinkle, 1979; Hinkle, 1980) that a strong familial component serves to predispose the child to absence-proneness. In addition, a pattern of school avoidance can be identified as early as preschool. Whatever the causal factors might be, the lack of effective intervention at an early age assures that avoidant behavior will become stronger over time.

In concluding, since industry has long been the forerunner in absenteeism research, and evidence exists that absenteeism in childhood may place children at-risk as adults, it seems essential that in dealing with attendance issues that we be able to differentiate school phobia from truancy, from a long standing familial pattern of maladaptive behavior (way of life), and from a transient stress situation within the school itself. Towards this goal, the need for procedures which can be used in dealing with the problem of poor attendance at different levels appears essential.

Intervention

Absence from school can be viewed from many perspectives, with the action taken to combat absenteeism often dependent upon how the problem is defined. Yet, as this paper outlines, school absenteeism is not "a problem" but many. Consequently, interventions must be sought that can be applied at various levels in order to reduce, deter or discourage, as well as minimize the effect of the absence.

Although absenteeism has historically been looked upon as a negative behavior, its occurrence is to be expected; and may be essential to normal development due to its contribution to individual homeostasis. In making decisions concerning absentee students, efforts should be taken to avoid the danger of making a snap judgement on the basis of superficial and incomplete evidence. In other words, before you decide what to do about an attendance problem - be sure you really have one!

To begin, persons interested in absenteeism need to utilize a more precise index than Average Daily Attendance (ADA). While the frequency index is the most reliable (Muchinsky, 1979), in spite of the fact that attendance data is frequently biased (Karweit, 1973), the need for an increasingly accurate description of the distribution of absenteeism is essential.

Since the ADA is a mean score or measure of central tendency, it should be used when the distribution of scores has approximately the same number of extremely high and low scores--when the distrubution is symmetrical. An accompanying measure of variability should be utilized in defining an attendance problem. Without such precautions, an inordinate amount of time and effort may be misused by adherence to a definition of absenteeism which reflects an inconsequential deviation in a normal pattern of attendance.

Furthermore, since absenteeism in general tends to increase in higher grades, not only is the variance in overall absenteeism important (K-12), but in order to establish appropriate norms: descriptive statistics need to be completed for each grade level, procedures need to be incorporated for identifying A-Type and B-Type absence, and consideration should be given to separate norms for males and females.

In short, considerable thought needs to be given to the significance of the absenteeism before intervention strategies (procedures) should be made. This is particularly important if such decisions will be put into effect on a district-wide basis (policy).

As noted earlier, absenteeism may identify certain children as being at-risk for maladjustment. The significance of absenteeism in such cases should not be taken lightly, but rather, judgements concerning the significance of the situation need to be made as to the most appropriate treatment.

The use of punishment in dealing with absenteeism has been argued against both in industry (Buzzard & Liddall, 1958; Greenwood, 1961; Jones, 1970) as well as in education (D'Amico, 1956; Newton, 1961; Peltz, 1965; Reeves, 1975; Yeager, 1949). Findings have consistently shown that using guidance and measures of rewards rather than punishment are more favorable in obtaining a decrease in absence behavior (Taylor & Jackson, 1974). Brokowski (1978) explored the relationship between various student variables and the adoption of a more restrictive attendance policy. While finding improved attendance and achievement performance in certain students, he concluded that all students do not perform more favorably under a punitive administrative control policy. The clamping down of sanctions as a means of dealing with absenteeism have been shown to produce changes in attendance behavior which are not necessarily in the desired direction, but may result in the simple substitution of illegitimate for legitimate excuses (Nicholson, 1976). The hard line approach to dealing with absenteeism may have appeared more acceptable during the time of high enrollment, but during the present period of declining student membership, every potential school dropout and transfer effect the operating budget of the school.

Medical and psychological theories have dominated the treatment strategies for separation anxiety, school phobia and truancy. Brooks (1975) noted that the shift from the medical to a psychological approach (Krasner & Ullman, 1965) marked the rejection of the symptom concept and concentrates on the particular behavior being modified and its immediate consequences. Such an approach, controlling environmental contingencies, points out the fact that school officials could save time and effort by dealing with individual absence behavior rather than conditions that may be beyond the control of the school such as home problems and societal conditions.

Other traditional methods of dealing with school attendance problems have included counseling as well as intensive psychotherapy (English & Pearson, 1955). On an individual level, relaxation, systematic desensitization, and the use of visual imagery may also prove useful psychological techniques. Family counseling should also be considered when appropriate and possible.

Muchinsky (1979), noted that when utilizing behavior modification in altering absenteeism several issues need to be kept in mind. The first to be considered is the nature of the reward system to be used. In spite of evidence suggesting that money works as an excellent incentive for attendance (Brooks, 1975), public opinion usually frowns upon the use of monetary reinforcement; a situation in stark contrast to the use of money in adult society. As a result, token economies and contingency contracting have been more acceptable substitutes. However, it needs to be kept in mind that for any reward system to be effective in curbing absenteeism, it must be seen as desirable by the absentee. Another issue in utilizing behavior management programs is how long the change in behavior is expected to last. The long term persistance of the behavior tends to vary widely with the extinction or fading of the behavior modification program. Finally, the cost of the program must be considered. The treatment should not cost more than the ailment.

Another way of dealing with absenteeism is to work around those occasions that seem to invite absence. Studies made of the various factors related to absence from school have shown that absenteeism tends to follow patterns (Mullin, 1955; Berganza & Anders, 1978; Hinkle, 1980). As such, individual days and months have been shown to be related to increased absence (Karweit, 1973). Consequently, alteration of the schedule or activities (e.g., fun day, test day, teacher inservice day) on traditionally high absenteeism days may help break the pattern of absence behavior.

While a complete list of such possible techniques is beyond the scope of this paper, various innovative considerations can be found throughout the literature. Examples include: year round school, evening school and four day school weeks (Unrich & Alexander, 1974) and extend as far as the modification of compulsory education laws (Splaine, 1975; Winstock, 1973).

Perhaps the most obvious way of dealing with absenteeism was offered by Morris (1972) who suggested that the key to the solution rests with education. Education for the teacher, counselor and school official so that they can recognize, react swiftly and sympathetically and provide the counseling necessary to prevent it from happening again; education for the community to spur individuals and organizations into, first, recognizing the problem, and then sponsoring programs to cure it and its related effects; education for the parents, so they can determine their responsibility and deal with the problem effectively in the home; and finally, for the student who may suffer now, in later life, or both.

In conclusion, the facts are that absenteeism is many problems and that no single procedure or policy is sufficiently comprehensive enough to effectively approach the multidimensional nature of student absenteeism.

Summary

Absenteeism from school has long been recognized as a problem for the American educational system. Associated with such conditions as delinquency (Tennent, 1971), dropout prevention (Bryant, 1971; Hinkle, 1979) and truancy (Brooks, 1974), absenteeism has received considerable attention. In spite of such concern, existing research has not, as yet, produced definitive conclusions as to the nature or cause(s) of this unrelenting problem. To date the subject of student absenteeism has been perceived as too complex, too diverse and too elusive to be understood.

The complexity of student absenteeism has been repeatedly stressed throughout this paper. As a result of historical review certain aspects of non-attendance have been made more clear. First, it needs to be recognized that the issue of "attendance" has evolved from basic religious, economic and social constructs. As a result, concern over absenteeism has become an integral part of the American educational system. In fact, many of the fundamental beliefs associated with the need to attend school may be responsible for existing assumptions concerning student absenteeism. Finally, student absenteeism in most research has been treated more as an isolated event (academic year) rather than from a longitudinal perspective.

Much of the diversity in findings concerning the impact absenteeism has upon the student, school and society in part may be explained by the same factors contributing to its complexity. Empirical as well as descriptive data, while finding statistical significance, do not suggest functional differences in educational development between absence-prone and absence-free populations. While the school is alarmed by absenteeism as a result of its relationship to funding and behavior, society's concern centers on delinquency and crime.

The elusive nature of student absenteeism must be viewed in relationship to theoretical and intervention strategies. Accordingly, while much of the frustration experienced in dealing with absenteeism may be attributed to the identification of methodological procedures used to study high absentee populations, specific subgroups of children at-risk dictate the need for swift and thoughtful treatment.

In conclusion, the practitioner may be advised that while the absentee student may be out of sight, he or she must never be out of mind.

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Adolescent Pregnancy:

An Interdisciplinary Challenge for School Psychologists

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Abstrac. Adolescent pregnancy has medical, psychological, sociological and educational repurcussions which mandate an active and expanded interdisciplinary team effort. Consequences of school-age pregnancy and motherhood are important factors in decision-making regarding educational procedures and psychological interventions. This paper surveys the current literature on adolescent pregnancy, discusses school and community-based involvement, and attempts to define a comprehensive role for the school psychologist from the confirmation of pregnancy to post-partum follow up. The school psychologist's challenge is to provide support, encourage appropriate aspirations, and to assist the adolescent in developing adaptive mechanisms that will enable her to integrate adolescence and pregnancy into a growth-producing situation.

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Definition, Background and History

During the late 1960s and early 1970s, the discovery was made that the incidence of out-of-wedlock pregnancies was increasing rapidly, despite the fact that the adolescent birthrate has been going down. Illegitimacy among adolescents became recognized as a serious national, medical and social problem (Osofsky, 1968; cited in McKenry, Walters & Johnson, 1979). On the basis of 1974 statistics, the Planned Parenthood foundation declared the adolescent pregnancy rate to be of epidemic proportion (Cabbott, 1978; cited in Foster & Miller, 1980).

The purpose of this chapter is to survey the current literature related to the pregnant adolescent. Seven topics related to prevalence are discussed: (a) Scope of the problem; (b) Causes of adolescent pregnancy - major theories for current epidemic; (c) Contraceptives and pregnancy resolution; (d) Medical risks; (e) Non-medical risks; (f) Recent legislation - funding and policy; and (g) Pregnant students/public schools.

Scope of the Problem

Every year, 1 out of every 10 teenage girls in America becomes pregnant, a rate higher than that in many other developed countries (Cohen, 1978; cited in "Congress of the U.S.," 1978). Of 22 selected countries, the U.S. ranks fourth, with a rate of 58 births per 1,000 females aged 15-19. East Germany heads the list with Romania and New Zealand following. Japan ranks lowest, with 5 births per 1,000 in this age group. The U.S. outranks even less developed nations, such as the Phillipines, Malaysia, and Tunisia (Hendrixson, 1979). If patterns do not change, 4 in 10 young women will become pregnant at least once while still in their teens.

The conception rate of unmarried girls aged 15-19 years was 8 per 1,000 in 1949; 16 per 1,000 in 1960; and 24 per 1,000 in 1971 (Plionis, 1975). The Department of Health of the City of New York recorded 42 live births to girls under 15 in 1940 (0.2% of the female population in this age group). In 1968, 430 live babies were born to girls under 15 (1.3%) of the female population in the same age group); a similar increase has been noted in the 15-19 age group (Babikian & Goldman, 1971).

The increase stems largely from the increase in the number of teenagers who are sexually active. The sexual revolution of the late 1960s was characterized by a sharp increase in premarital intercourse among adolescents. The push toward equality in sexual behavior and the upsurge of the feminist movement, a rapid rise in divorce rates, a growing acceptance of "alternative" life-styles, and a generally free and open sexual climate are trends that have continued beyond the 1970s. By the early 1970s, premarital intercourse by age 18 was almost normative for both males and females, and the double standard of sexual behavior had almost disappeared (Chilman, 1979). Today, seven million teenage men and five million teenage women are sexually active (Guttmacher, 1981). Between 1973 and 1978, the number of pregnancies among 18-19 year olds rose fairly steeply (21%); the number of abortions more than doubled, while the number of births declined by only 7%. Among 15-17 year olds, the number of pregnancies rose 4%; abortion increased by 45%; births declined more dramatically (15%). For the youngest age group, the number of pregnancies increased 5%; abortions were up by 31%, and births down 17% (Guttmacher, 1981).

Of the estimated one million adolescent girls who become pregnant each year, 400,000 are 17 or under, and 30,000 are 14 or under (Califano, 1978; cited in "Congress of the U.S.," 1978).

On the average, teenagers begin sexual activity at about age 16. A national survey of adolescents aged 13-17 reported that 44% of males and 30% of females in this country have had sexual intercourse by age 16. By age 19, 51% of females and 72% of males have had intercourse (Sorenson, 1972; cited in Stewart, 1981). The requirement of some degree of personal commitment, however, and the unacceptability of casual sexual activity continued to characterize adolescents today as it did several decades ago (Packard, 1970; cited in Stewart, 1981). The numbers of sexually active teenagers increased by 2/3 over the 1970s, while the proportion of teenage marriages continued to decline. Few young women and even fewer men, marry in their teens. In 1978, 6.9% of young women, and 1.6% of young men aged 14-19 were married. Ten years earlier, the percent for women was 7.7% and 2.1% for young men (Guttmacher, 1981). This decline was much sharper for young blacks - from 7.7% to 3.4% for young women, and from 1.4% to 0.5% for young men - and is attributed to the decreasing tendency of teenagers to marry in order to legitimize a premaritally conceived birth. It is estimated that, all other things remaining unchanged, 42% of the teenage women who were 14 years old in 1978 will have been pregnant before their 20th birthdays (Tietze, 1979; cited in Hale, 1980).

The recent increase in sexual activity is accounted for almost entirely by unmarried white teenagers, especially those in the 15-17 age group. Although the proportion of black teenagers who are sexually active continues to be higher than that of whites, the gap has closed considerably. The average age for a young white women is 16.4 and 15.5 years for young black women (Guttmacher, 1981).

The rising and consistent use of contraceptives by teenagers has not kept pace with this increase. The level and consistency of contraceptive use increased over the 1970s. During the latter half of the decade, however, the trend of rapidly increasing use of the most effective methods - mainly the pill - was reversed. The new users tend to begin sexual activity with less effective methods, most often withdrawal.

Teenagers questioned in 1978 were about 2½ times more likely to have used withdrawal as their method at the first intercourse than those surveyed three years earlier (Guttmacher, 1981). It is likely that they were influenced by adverse publicity about the dangers of the pill and the IUD.

Despite the widespread and increasing use of contraceptives, 25% of sexually active teenagers reported never having used any methods of protection (Califano, 1978; cited in "Congress of the U.S.," 1978). These are responsible for almost 60% of premarital pregnancies among teenagers.

Forty-two percent reported to have used them, but not regularly, and 34% reported consistent use of contraceptives. No national data are available for males, but a few studies indicate that about 90% of sexually experienced black males of high school age and 70% of white males report having had unprotected intercourse at least once (Cvetkovich & Grote, 1975; Finkle & Finkle, 1975; cited in Chilman, 1979).

Among teenagers interviewed in 1976, 15% of those who had their first premarital pregnancy conceived again within a year, whereas 50% had repeat pregnancies in 1971. Seventy-eight percent of births to teenagers are first births, 18% are second births, and 47% are third or higher order births (Furstenberg, 1976; Guttmacher, 1981). Bumpass (1978; cited in "Congress of the U.S.," 1978) found a significant relationship between shorter birth intervals and earlier age at first birth. In its report "11 Million Teenagers", the Alan Guttmacher Institute stated that married women who begin childbearing before age 18 will have families 1.3 times larger than women who begin childbearing at 20-24. Younger women average a completed family of nearly four children as compared to three among older women ("Congress of the U.S.," 1978).

In a five year follow-up study of 100 patients who had become pregnant prior to age 19, 95 had subsequent pregnancies and produced 340 babies. Five years after the birth of the first baby, only nine were married; 60% were on welfare (Sarrel & Davis, 1966; 1967; cited in Babikian, et al., 1971).

In 1978, as in 1970, close to half of all marital first births were premaritally conceived. During 1976, about 1.2% of white teenage girls and 9.2% black teenage girls gave birth outside marriage (National Center for Health Statistics, 1978; cited in Chilman, 1979).

Overall, 1,100,000 pregnancies ending in birth, abortion, miscarriage, or stillbirth occurred to adolescents in 1976. Of these, 570,672 were live births, 378,500 were aborted and approximately 20% ended in miscarriages or stillbirths. In the age range of 15 and under, there were 162,000 first pregnancies. Of these, 85,000 ended in live births and 54,000 ended in induced abortion (Teitze, 1978; cited in Foster, et al., 1980).

Causes of Adolescent Pregnancy - Major Theories for Current Epidemic

The past decade has witnessed a dramatic rise in the incidence of unwanted pregnancies among unmarried teenage women. The problem is frequently described in terms of "epidemic" when reported in the popular press and in professional journals. Premarital pregnancy among adolescents has come to be viewed as a serious social problem in recent years by policy makers, educators and laymen concerned with youth. Grave social, economic and psychological consequences are seen not only for women themselves, but also for their families' and for the communities in which they dwell.

"Probably any teenager could tell that out-of-marriage births are caused by intercourse together with insufficient contraceptive protection, lack of abortion and failure to marry." (Chilman, 1976; cited in MeKenry, et al., 1979). What is difficult to determine are the specific reasons why two young, unmarried people allow an unintended pregnancy to occur. Rather than concentrating on any single causative traits or conditions, the research now generally agrees that it is a combination of many factors which create the particular situation in which an adolescent is not likely to become pregnant (Youngs & Niebyl, 1975; cited in McKenry, et al., 1979).

The causes of adolescent pregnancy are varied. Although there have been numerous attempts to identify factors, traits, and conditions whereby one could identify individuals who are "at risk", no well-designed nationwide study of adolescents has adequately examined variables associated with early nonmarital coitus (Chilman, 1979). A number of studies, however, appear to have produced sufficiently similar results so as to instill a certain amount of confidence in their findings. The factors identified which consistently relate to high pregnancy rate are: low socio-economic status, race, family instability, and peer expectations (McKenry, et al., 1979). Changing norms about sex, low levels of educational achievement, low goals, and limited communication between parents and youths also seem evident (Chilman, 1979). Again, although these variables characterize a high-risk population, they provide little assistance for identifying individuals who are "at risk".

It was assumed that young pregnant girls had either a conscious or unconscious desire to become pregnant (Furstenburg, 1976; cited in McKenry, et al., 1979). Pregnant girls were thought to be different from other girls and to have special needs (Baizerman, et al., 1974; cited in McKenry, et al., 1979).

Over the years, the reasons for unmarried adolescents to become pregnant have changed. In the 1920s, bad companions, immorality, and mental deficiency were listed as causes. In the 1930s poverty and broken homes were blamed. In the 1940s the emphasis shifted to psychological factors, and in the 50s the "sick" society and delinquent behavior were blamed. The general consensus in recent years has been that a multiplicity of factors, rather than a single cause, are responsible for unmarried adolescent pregnancy (Burnside, et al., 1979; cited in Foster & Miller, 1980). Some of the most frequently accepted factors are as follows:

1. There are more adolescents today as a result of the post World War II baby boom. In 1977, there were 33 million more women between the ages of 15 and 19 than there were in 1950 (Nahashima, 1978; cited in Foster & Miller, 1980).

2. The age at which puberty occurs has steadily declined. The average age today in the United States is 12.8 years for girls; however, 13 percent reach puberty at age 11 or earlier (Califano, 1978; cited in "Congress of the U.S.," 1978). The average adolescent female is able to conceive by age 14, and the average fertility age for young males is 15.

3. Improved overall health and improvements in nutrition (Cutright, 1972; cited in Foster & Miller, 1980).

4. Earlier age of premarital sexual experimentation due to rejection of parental standards, relaxing of the "double standard", the availability of contraceptives, and changing sexual standards (Burnside, 1979; cited in Foster & Miller, 1980).

5. Adolescents are often misinformed about contraception due to negative publicity about the pill, desire to preserve the natural, spontaneous effect of sexual relationships, and belief that they can't become pregnant (Burnside, et al., 1979; Webb, 1976; cited in Foster & Miller, 1980). According to Polsby (1974), the reason adolescents become pregnant even when contraceptives are available is that they are not mature people. She contended that maturity is required for a person to: (a) exercise self-control, (b) foresee the consequences of behavior, (c) believe that she can get pregnant, and (d) have the nerve to acknowledge her sexuality to a doctor. She went on to state that such logical reasoning is a cognitive skill which exists in varying degrees among adolescents, and which are more complex than simple IQs and tabulations of types of experiences.

6. Poor self-control in young adolescents (Teitze, 1978). The desire for affection and self-esteem lead to early participation in coitus.

7. Societal and peer-group pressure on females to please and be attractive to males (Burnside, Ebersale & Monea, 1979).

8. Belief of some adolescent females that pregnancy will fill a void, or will result in commitment of partner (Nahashima, 1978; cited in Foster & Miller, 1980).

9. Exposure to sexual stimuli through mass media (Burnside, et al., 1979).

10. Mobility to urban areas where there are fewer social inhibitions (Burnside, et al., 1979).

11. Many adolescents live in families in which their parents were having nonmarital affairs in 1960s and 1970s.

Betty Friedman's (cited in Stewart, 1981) statement that after World War II the rate of adolescent pregnancies increased by 100% was a factor not perceived as especially noteworthy. It does suggest, however, that factors other than the existence of adolescent pregnancy or its increase contribute to the description of adolescent pregnancy as problematic.

There is conflicting evidence (Jessor, 1975; Cvetkovick & Grote, 1976; cited in Chilman, 1979) about whether drug and alcohol use actually causes earlier participation in coitus or whether the same cluster of social and psychological characteristics leading to adolescent sexual activity also increases the likelihood of drug and alcohol use.

A more in-depth discussion of the social and psychological factors believed to trigger attitudes and behaviors which are likely to lead to pregnancy will be presented in the Needs Assessment Section of this chapter.

Contraceptives & Pregnancy Resolution

Of the 13 million sexually active adolescent females in this country, over 10% become pregnant each year, with over half of those bearing their children (Boltom, 1980; cited in Stewart, 1981).

Adolescent Pregnancy

In 1977, the incidence of pregnancies carried to term by U.S. females aged 10 to 29 was 54.9 per 1,000 (Hale, 1980). For white females the rate was 45.2; for nonwhites, 112.0. If the prevalence for this age group is defined as the percentages of all births, represented by births to women under age 20, then the overall figure for the U.S. is 17.2%; 14.7% of white births, and 27.3% of nonwhite births. These figures are the highest in the industrialized world. In Japan, for example, teenagers contributed only about 1% of all births (Department of H.E.W., 1979; cited in Hale, 1980).

Of the 1,142,000 teenage pregnancies in 1978, about 434,000 were terminated by abortion, 362,000 were births conceived out-of-wedlock (Guttmacher, 1981). Only 192,000 - one in six - were conceived following marriage; the remainder were miscarried.

The relationship between pregnancy and contraceptive use is dramatic. In 1976, teenagers experienced about 780,000 premarital pregnancies (Guttmacher, 1981). It is estimated that if no contraception had been used, nearly 1.5 million such pregnancies would have occurred. In other words, contraceptive use by unmarried teenagers averted some 600,000 pregnancies in one year.

In 1971, young white women were about twice as likely as young black women to use contraceptives at each intercourse (Shah, Zelnik & Kantner, 1975; cited in Chilman, 1979). In 1976, when they repeated their national survey of young women between ages 15 and 19, these researchers found that contraceptive use had improved in some ways for both races. Thirty percent of the single, sexually active women in their study reported "always" using contraception, compared to 18% in 1971. A greater proportion (25%), however, than in 1971 said that they "never" used contraceptives. Among married teenagers in 1973, only about half said they were using contraceptives (Zelnik & Kantner, 1977; cited in Chilman, 1979). To the extent that contraceptives can prevent pregnancy, it may be advantageous to consider non-use as a "cause" of pregnancy while, at the same time, to recognize that non-use itself is caused by other factors (McKenry, et al., 1979).

According to currently available research (Shah, Zelnik & Kantner, 1975; cited in Chilman, 1979), there are certain demographic, situational and psychological variables characteristic of adolescent women who are less likely to use contraceptives or to use effective ones consistently:

Demographic

Age less than 18.
Single status.
Low socioeconomic status.
Minority group member.
Not planning to attend college.
Fundamentalist Protestant.

Situational

Not in steady, committed relationship.
Never pregnant.
Having intercourse sporadically.
Being in a stressful situation.

Lack of access to a free, confidential, personally reassuring family planning service that does not require parental consent.
Lack of communication with parents about sexuality and contraceptives.
Lack of friends who use contraceptives with satisfaction.
Recent initiation into coitus.

Psychological

Desire for pregnancy; high value placed on fertility.
Ignorance of risk of pregnancy and of family planning services.
Feelings of fatalism, powerlessness, alienation, incompetence and trusting to luck.
Passivity, dependence; traditional female role attitudes.
High level of anxiety; low ego-strength.
Lack of acceptance of reality of sexual behavior.
Attitudes favoring risk-taking and pleasure-seeking.
Fear of side effects and infertility.
Low educational and vocational goals.
Low level of interpersonal communication skills.

A multifactor approach is necessary in response to the many situational and psychological factors that contribute to poor contraceptive practice if untimely pregnancies among teenagers are to be prevented.

Young adolescents who have only recently begun to engage in intercourse are especially unlikely to use contraceptives (Reichett, 1976; Zabin, Kantner & Zelnik, 1979; cited in Chilman, 1979). It is estimated that 1/5 of teenager premarital pregnancies occur in the first month after sexual initiation; 1/2 occur in the first 6 months; and 8 in 10 premarital teenage pregnancies are unintended (Guttmacher, 1981). In fact, it is common for teenage girls to be sexually active for a year or more before seeking help in obtaining contraceptives.

Faced with an out-of-wedlock pregnancy, most teenagers choose abortion (Guttmacher, 1981). Recent statistics indicate that almost 1/3 (31%) of all premarital pregnancies end in abortion, a proprotion which is virtually unchanged from year to year (Hale, 1980).

Between 1973 and 1978, the number of abortions obtained by adolescents nearly doubled (Guttmacher, 1981). A series of Supreme Court decisions and resultant changes in federal policy in the early 1970s made free legalized abortions available to adolescents. In 1978, as a result of pressure by "right-to-life" groups, however, federal funds for abortion were withdrawn except in cases of rape, incest, or serious threats to the mother's physical health. Between 1973 and 1976, the abortion rate for both black and white teenagers rose rapidly, which played a large part in the reduction of adolescent birth rate (Baldwin, 1976; cited in Chilman, 1979).

Few recent studies are available on the effects of abortion and characteristics of teenagers who choose abortions due to reporting problems (Hale, 1980). Poor and black teenagers are less likely to terminate their pregnancies than are white and affluent teenagers (Guttmacher, 1981). Because the number of unwanted pregnancies are greater among poor and black teens, however, abortion rates for this group are little different from those of other groups. The increased availability of abortion is associated with an improvement in contraceptive practice.

Teenagers are much more likely than older women to delay abortion to the later, more dangerous weeks of pregnancy, due to availability of clinics, cost factors, menstrual irregularities and psychological factors (Guttmacher, 1981). Thus, 3 in 10 teenagers estimated to want and need abortion services in 1978 were unable to obtain them.

As with race, poverty status is associated with a disproportionately high number of unwanted pregnancies. Evans, Selstad and Welcher (1976; cited in Chilman, 1979), found that pregnant teenagers who chose abortion were likely to be having academic success before pregnancy and to come from intact, non-Catholic families who were not on welfare. Those who aborted and had later regrets were more likley to be Catholic, from low socioeconomic origins, doing poorly in school, and felt parental pressure to abort.

The Johns Hopkins National Survey of Young Women (1976; cited in Guttmacher, 1981), found that teenagers who aborted their first pregnancies were only half as likely to become pregnant a second time within the following year than those whose first pregnancies resulted in live births.

Clues from research on the after-effects of abortion indicate relief to be the most usual immediate reaction (Osofsky & Osofsky, 1972; Monsour & Stewart, 1973; cited in Chilman, 1979). Later adverse reactions, however rare, are most likely to occur among women having previous histories of depression and anxiety. The positive contribution to the adolescent's morale by support from friends, parents, and boyfriends at the time of abortion has also been indicated (Cobliner, Schulman & Romney, 1973; cited in Chilman, 1979).

Unwed teenage mothers rarely give up their babies for adoption or for care by friends or relatives (Guttmacher, 1981). Ninty percent of white teenagers and virtually all black teenagers keep their babies. With the legislation of abortion, many teenagers choose to terminate their pregnancies rather than bear children they would have to give up for adoption or for care by friends or relatives.

Medical Risks

It has been frequently claimed that early childbearing subjects the adolescent female to greater medical risks than for women in the 20s. Maternal mortality rates for mothers under 20 are about 30% higher than for mothers aged 20-25. It is also widely held that an adolescent pregnancy poses a greater medical risk to the child. Babies born to teen mothers are much more likely to die in their first year of life than those born to mothers over age 20. Late fetal death ratios among mothers under 20 are about 30% higher than for mothers aged 20-25. The baby of an adolescent mother has a 30% increased risk of dying before his or her first birthday as compared with babies of mothers aged 20-24 (Georgia Council on Maternal & Infant Health, 1977; cited in Foster & Miller, 1980). Maternal mortality and morbidity and the risk of having a low-birth-weight infant are also considerably greater among teenage mothers. Despite improved prenatal care, pregnant adolescent mothers aged 15 and younger are still two times more likely to have low-birth-weight babies than are those aged 20-24 (Guttmacher, 1981; Klein, 1974; cited in McKenry, et al., 1979). Among all teenagers, this risk is about 39% higher. Complications such as toxemia, cephalopelvic disproportion, low-birth-weight, some congenital anomolies, anemia, prolonged labor, post partum infection and hemorrhage are all associated with age.

Although research efforts have thus far been unable to pinpoint which specific factors create medical risks, those factors assumed to be related to risk are important to consider. Observed health problems such as higher rates of infant mortality, premature births and childbirth complications may be related more to socioeconomic status, race, nutritional status, and delayed or inadequate prenatal care than to age alone (Menken, 1975; cited in Chilman, 1981; Guttmacher, 1981; Plionis, 1975; cited in McKenry, et al., 1979). For example, low-birth-weight among black babies continues to be much higher than those among whites whatever the age of the mother, in part because black women typically obtain prenatal care much later (Guttmacher, 1981). Half of the pregnant teenagers age 15-17 receive no prenatal health care until the second trimester; 6% of pregnant teenagers under age 15 receive no prenatal care at all (Califano, 1978; cited in "Congress of the U.S.," 1978). Biological immaturity of the adolescent female is also thought to be a factor of risk as it signifies incomplete biological and emotional growth.

The pattern of the relationships among these variables is not yet completely understood. Few of the existing studies consider the other risk factors often associated with medical risks. It has been maintained (Grant & Heald, 1972; Menken, 1972; Stewart, 1976; cited in McKenry, et al., 1979) that the biological and social determinants are so interrelated that the separate effect of each can seldom be measured with precision. Also, some generalizations from research may be unwarranted as a result of the small sample sizes and low income, clinical populations that characterize studies on adolescent pregnancy (Baizerman, et al., 1974; cited in McKenry, et al., 1979). Such studies must be reviewed carefully as a result of the variance in sample characteristics, the lack of controls, and the disparity of terminology. Also, it may be well to be wary of review articles that treat certain medical conditions as proven fact (Stewart, 1976; cited in McKenry et al., 1979).

Finally, recent experiments indicate that when efforts to provide first-rate medical care to pregnant teenagers are made, differences in maternal and infant health associated with the mother's age disappear (Chilman, 1981). Despite the many reports which base their conclusions on inconclusive findings, there does appear to be more credence in the proposition that the adolescent is a high-risk pregnancy patient.

Non-Medical Risks (Financial - Educational)

The pregnant adolescent has much of her life's script written for her - delayed or terminated education, excess fertility, low-paying job or employment, forced marriage, and marital instability (Guttmacher, 1981; Furstenberg, 1976; Olson, 1979; McKenry, 1979). A number of other studies (Moore & Hofferth, 1978; Moore & Caldwell, 1977; and Furstenberg, 1976; cited in Chilman, 1979) show that young women who have their first child before the age of 18 or 19 are more likely to have a higher incidence of births outside of marriage, higher rates of early marriage, and early separation or divorce. They are also more likely to have male partners of low educational and occupational status. Teenage marriages have been found to be two to three times more likely to break up than marriages occurring after age 20 (Guttmacher, 1976). Sixty percent of teenage brides 17 years of age and under divorce within six years, 20% divorce within 12 months (Furstenberg, 1976). Thus, there is also high probability that teenage mothers will bring up their child/children with no father present (another reason for low family income). Living in poverty, lacking education and opportunity, and being brought up in a one parent home hurts the children of teenage parents. Such children are likely to have lower IQs and achievement levels than their peers, and are more likely to repeat a grade in school (Guttmacher, 1982). They are also more likely to become teenage parents themselves. In one study of teenage parents, 82% of girls who became mothers at age 15 or younger had mothers who had first given birth as teenagers (Miller, 1981; cited in Guttmacher, 1981).

Because they have no other source of income, most often teenage mothers will resort to public assistance. In a two year study on the cost of teenage childbearing, it was found that of 50,000 households surveyed, 61% of the women living in Aid for Dependent Children households had their first children as teenagers (Moore, 1978; cited in Foster & Miller, 1980). A New York City study indicated that 91% of the women who first had babies at 15-17 had neither full nor part time employment and that 72% of those 15 and older were receiving welfare (Guttmacher, 1976). Unwed teenage mothers are more likely to complete an education, get jobs, and thus avoid dependency on welfare if they live with their parents than if they live alone (Guttmacher, 1981). Of the unwed mothers who lived with parents or relatives, 87% remained in school following childbirth, as compared to 76% of those living alone (Furstenberg & Crawford, 1978; cited in Guttmacher, 1981). Additionally, when grandparents or the child's father helped the teenager to care for the baby, the child's cognitive development was found to be superior to that of children who were brought up by the young mothers alone.

Friedman & Coombs (1966; cited in McKenry, et al., 1979) found a high association between premarital pregnancy rate and economic standing of the family after marriage in their study of married couples with at least one child premaritally conceived. It was found that the couples were at substantial economic and educational disadvantages at various stages of their married life. Also, the lower the current income, the higher the percentage of couples who have a premarital pregnancy. Because of the need for immediate income and security, the couples are restricted in job choices and in the ability to pursue educational opportunities. Of the nearly 600,000 families with children five years old or younger headed by mothers aged 14-25, nearly 43% are living below the official poverty level ($6,682) for a non-farm family of four (U.S. Bureau of Census, 1978; cited in Guttmacher, 1981). In fact, the median annual income of families headed by women under age 25 is $3,953 - well below the official poverty level.

Again, as is the case with medical risks, careful analysis of research on teenagers before and after pregnancy strongly suggests that many of these youngsters would still be likely to experience educational, vocational, familial and financial difficulties in the future whether or not they become parents in adolescence. Becoming a teenage parent, however, merely adds further difficulties for youngsters who have been burdened throughout their developmental years by such factors as racism, poverty, poor family relationships and low educational achievement in school. Prevention of early pregnancies would not solve all of these problems; however, it would reduce the obstacles that many of them face in completing high school, finding employment and raising a stable family.

Psychological

Girls who become pregnant in adolescence frequently face three concurrent crises: adolescence, early marriage and pregnancy - each of which creates characteristic adjustment tasks (Konopka, 1967; LaBarre, 1968; cited in McKenry, et al., 1979). Other researchers found that most unwed mothers were generally unhappy or distressed and suffer from doubt, uncertainty of feelings, loneliness and helplessness (Wagner & Slemboski, 1968; cited in McKenry, et al., 1979). One study found a 13% suicide-attempt rate in a study of 180 pregnant school-age girls (Jekel, Tyler, Gabrielson, Bancroft, & Klerman, 1973; cited in McKenry, et al., 1979).

In a review of the related literature Greenberg (1972; cited in Galant, 1974), found it tends to support the generalization that pregnancy out-of-wedlock is a symptom of emotional disturbance and/or of disturbed family relationships. In a study on perceived differences between pregnant and never-pregnant girls, this author found significant differences between the two groups. At the .05 level of significance, the never-pregnant girls manifested more self-perceived problems and less family adjustment than did the pregnant girls. Three out of 16 personality factors (from 16 Personality Factor Questionnaire) showed significant differences between the two groups ($p. > .01$). The pregnant girls were more outgoing, shrewd, and apprehensive, while the never-pregnant girls were more reserved, forthright, and self-assured. The general personality profile, however, was well within the average range for both groups.

In a psychological study of 85 pregnant school girls, Zonkger (1977; cited in Foster & Miller, 1980) found that several exhibited poor self-esteem, feelings of inadequacy, and unworthiness and were dissatisfied with their family relationships and physical bodies. There were also found to be conflicts, unrealistic over-compensations, instability and defensiveness on the part of the girls. He was unable to demonstrate, however, whether these feelings existed prior to pregnancy and were a causative factor, or whether these feelings were the result of the pregnancy itself.

Babikian and Goldman (1975; cited in Stewart, 1981) report that the pregnant adolescent characteristically experiences superego deficits and poor structuralization of ego. In their study, they found 22 of 30 subjects to have extreme dependency needs; 19 showed low frustration tolerance; 15 had extremely poor judgement, and 13 had "primitive defenses and had made a marginal adjustment" (p. 451). Overall, ego function was evaluated as low. In this same study, the authors placed the behavior of eight women in the category "psychotic", eight as neurotic, and one had a psychophysiologic disorder (asthma); five others were diagnosed as having behavior disorders of adolescence (unsocialized-aggressive reaction type). The diagnosis of the "remainders" was that of having transient situational disorders. Bile (1971; cited in Stewart, 1981), suggests that denial and detachment of self from the act of intercourse (as indicated by the minimal pleasure females received) is characteristic of pregnant adolescents.

There are few studies to date that have examined the self-concept of pregnant adolescents. Lindeman (1974; cited in Zongker, 1977) found that failure to redefine one's self-concept was an instrumental factor in unwanted pregnancies among teenage girls. The author noted an avoidance in the decision to use birth control; their self-concepts would allow a spontaneous sexual experience, but intentional coitus was too dissonant with their self-perceptions to allow realistic and rational appraisal of the probable consequences. Schiller (1974; cited in Zongker, 1977), in evaluating a program of group counseling with pregnant school-age girls, noted that the subjects had poor self-images, as well as inadequate ego strength to cope with daily problems.

Recent studies, therefore, affirm the probable existence of a low self-concept for pregnant adolescent girls, but yet have failed to investigate or substantiate how these self-perceptions may differ significantly from a group of similar non-pregnant adolescents.

Adolescence, then, with all its emotional upheavel, presents a maturational crisis that must be satisfactorily resolved in order to move into adulthood. When the crisis of pregnancy is added to the maturational crisis of adolescence, the psychological impact can be staggering. At a time when support systems are essential, the unwed pregnant adolescent may find herself lonely and depressed, with little support from significant others, and few resources to which she can turn.

There is a definite need for school psychologists to be a part of the multi-disciplinary team and to work with the young pregnant girl in a supportive counseling role. The main focus should be two-fold: to assist the adolescent in developing responsible, adaptive mechanisms for dealing with adolescence and pregnancy, and to integrate the two conditions into a growth-producing situation. Another role of the school psychologist would be as a liaison between the adolescent and the community agency which would best meet her particular needs. A review of such programs will be discussed later in this chapter.

Adolescence & Parenthood

It is frequently claimed that adolescents are inadequate as parents. The few studies that do exist, however, (Furstenberg, 1976; Dreyfoos & Belmont, 1978; cited in Chilman, 1979), fail to confirm this assumption, especially when adverse effects such as low socioeconomic status, rather than age per se, are taken into account. Transition to parenthood at any time can be difficult. Russell (1974; cited in McKenry, et al., 1979) identified several factors as being related to the ease of this transition including socioeconomic status, family planning, age, timing of parenthood in the marital career of the women, marital adjustment and high commitment to the parental role. Adolescents are at a definite disadvantage in terms of these factors.

Additionally, adolescent mothers, due to limited knowledge of the normative states of child development, frequently have unrealistic expectations of their children in terms of emotional maturity and behavior expectations. In a study of 48 adolescent couples from semi-rural areas, de Lissovoy (1973) states:

> "In general, I found the young parents in this study to be, with a few notable exceptions, an intolerant group-impatient, insensitive, irritable and prone to use physical punishment with their children. Only 5 mothers, for example, expressed enjoyment of

> their children in the sense that they spontaneously cuddled or played with them just for the sheer joy of it. It was also surprising to learn that in this primarily rural area, only three mothers had attempted to breastfeed their children" (p. 23).

As a result, children of adolescent parents are at risk for abuse, neglect, retarded physical and emotional development, poor scholastic achievement, and delinquent behavior (Youngs & Niebyl, 1975; cited in McKenry, et al., 1979).

Once the decision is made to continue pregnancy, however, many adolescents are highly motivated. Among their many assets are youth, high energy, resiliency, great caring capacity and freedom from disease (Duxbury, 1976). In defense of adolescent parenting, Osofsky & Osofsky (1970; cited in McKenry, et al., 1979) also found areas of maternal strength such as warmth and physical interaction. These authors suggested the main area of weakness to be verbal interaction, which may be related to infant development problems.

Studies examining consequences of school-age pregnancy are of uncertain validity (Henderson, 1980). The range of variables considered is rather limited and inconsistent. Hale (1980) found the use of small, clinical populations, lack of controls, and unsophisticated methodology to be common problems in research on adolescent pregnancy. Henderson continued that sources have only rarely provided data to substantiate these or other consequences of school-age pregnancy and motherhood. More importantly, school-age mothers' perceptions of consequences have not been sought out. These perceived consequences may be pertinent factors in determining approaches to services and educational decisions in programming for school-age mothers; whereas these are now based, in part, upon assumed consequences of early motherhood.

Recent Legislation: Funding & Policy

The passage of Title IX of the 1972 Educational Amendments included in its mandate equal rights for both pregnant and parenting students (Zellman, 1981). Prior to 1964, many schools had policies which prohibited attendance by pregnant students or young mothers. However, due to: (1) the increasing numbers of births by teenage mothers, (2) the increase in out-of-wedlock births, and (3) the evidence of the adverse factors on welfare and school drop-out rates, teenage pregnancy has become a societal concern, thus compelling some institutional response to the matter.

Local education agencies (LEA's) responses to the concern were constrained by several factors: for example, a narrow (medical) definition of the problem, opposition to sex education, contraception and abortion; disagreement about the role of local schools; lack of expertise, and lack of incentives to develop programs (Zellman, 1981).

In view of such constraints, the creation of special programs for this population must be viewed as a major achievement.

Legislation passed in November, 1978 (Public Law 95-626, the Adolescent Health Services & Pregnancy Prevention Care Act; cited in Chilman, 1979) provides federal funds for:

> "Comprehensive health, educational and social services to teenagers so as to prevent unwanted pregnancies and to provide these services to young parents and their children, especially for those parents who are under age 18" (p. 497).

Title VI of this legislation provides for grants to public and private non-profit organizations and agencies to help them deliver core services, i.e., testing, counseling, medical care and family planning.

According to this act, grants will be made available to local public or non-profit agencies to coordinate available community resources, including those from a variety of state and federal programs. Critics, however, cite many problems with this legislation. The federal government has allocated some funds for the support of local programs, but has failed to provide national leadership or support for innovative program efforts. Several states provide funds, but lack of leadership (Zellman, 1981). As of 1981, only 27 projects have been initiated throughout the country (Guttmacher, 1981). Emphasis is placed on providing services to adolescents who are already pregnant or who are parents, rather than on prevention of pregnancy. Service providers are required to offer counseling about maternity and adoption, but need only inform the teenager of the possible availability of abortion.

As of January 1982, new legislation was passed: Senate Bill 1090, officially entitled "Public Health Service Act Amendments Related to Adolescent Pregnancy and Parenthood", authorized 30 million annually for a three year period beginning in Fiscal Year 1982 (1981-82). This bill becomes law in July (Henderson, 1982).

This act, introduced by Senators Jeremiah Denton (R-Ala.), and Orrin Hatch (R-Ut.), is considered a response to recent findings on the sexual behavior of young people and provides for demonstration projects of integrated "essential" and "necessary" services to adolescents and their families. It is found to contain some concepts, however, that are disturbing to family life education and administrators concerning restricted freedom of program operations and/or instructors to present all options to students (Henderson, 1982). A major thrust of this law is to encourage the prevention and curtailment of adolescent sexual relations rather than to encourage the use of family planning.

Section 1911, for example, requires that no funds under this title be used to provide abortion counseling or referral, or to make payment for abortion. Under previous legislation, a teacher felt free to provide information on safe and legal abortion clinics and counseling if a student chose this option. Such referral will not now be possible in programs funded by this act. Information counseling and referral related to adoption, however, is both highlighted and required throughout the law.

Inclusion of parents and/or family within the scheme of prevention and intervention techniques is a key component of this bill. Application of this is vague, however, and it seems difficult to determine how such family emphasis can be implemented with such large numbers of adolescents and their families. Henderson (1982) is of the opinion that if this law follows the typical path of such governmental endeavors, then a team of social work program facilitators will likely be used for implementation rather than public school involvement.

Pregnant Students/Public Schools

Of the 1.1 million teenage mothers, about 670,000 have not finished high school (Guttmacher, 1981). Few local districts have pregnancy policies, and transfer and absence policies may reduce the likelihood that young mothers will complete school.

Prior to 1964, many schools had policies which prohibited attendance by pregnant students or young mothers, which have since been struck down by federal and state legislation (Walz & Benjamin, 1980). In Mendenhall vs. Speckhard, et al., a 1971 Indiana case, the court ordered school officials to readmit a pregnant, unmarried high school senior, and concluded that "the right to receive a public school education is a basic personal right or liberty. Consequently, the burden of justifying any school rule or regulation limiting or terminating that right is on the school authorities" (Warren, 1982, p. 112).

Title IX of the Education Amendments of 1972 mandates that sex descrimination be eliminated in all federally assisted education programs. In 1974, Section 86.40 was added to protect the rights of pregnant students in U.S. schools (Warren, 1972). In addition, a special instructional program for "homebound" students must be made available to the pregnant student, based on the same criteria as programs for other students.

These requirements have enabled an increasing number of school-age mothers and pregnant girls to continue their education during pregnancy and following delivery. With the legal obstacles removed, however, pregnant teenagers continue to face an uphill battle in continuing their education (Walz & Benjamin, 1980).

Current educational opportunities for pregnant girls and young mothers may appear acceptable, but the concern of educators has not been fully satisfied (Henderson, 1980). Increased acceptance of pregnant teenagers in regular school programs has encouraged some school systems to eliminate special services. Also, some programs have been criticized as "over nurturant" environments which may foster dependence of young mothers rather than independence.

Although the majority of Americans favor sex education in the schools, only a handful of states require or even encourage it. Fewer still encourage teaching about birth control or abortion. Most states leave the question up to local school boards. When sex education is offered, the course content is often so "watered down" that teenagers do not even learn such basic facts as the time of month when pregnancy is most likely to occur (Guttmacher, 1981).

Case studies and observations of special programs in 11 school districts scattered around the country were surveyed by Zellman (1981) at the request of the National Institute of Education to determine what the schools are doing - or not doing - about educating pregnant and parenting students. Each had a program serving pregnant students and/or teenage mothers. The researchers discovered that practices were remarkably similar in each school; most personnel aimed soley at helping a pregnant student enroll in a special program. Few schools had policies to work with parenting students or the means to help maintain school attendance, i.e., day care or evening classes. Decisions about continuing education were usually left to the student and their families. Little or no continuing services are offered after the babies are born, while young mothers need to restructure their lives to function as parents, students and adolescents.

Teenage pregnancy triggers personal reactions in everyone, professional educators not excluded. Teachers and administrators may exhibit, often unknowingly, negative attitudes toward the pregnant student which make her feel embarrassed or rejected. Or, they withdraw their support and guidance just when the student needs it most. Conversely, some teachers may tend to become overly protective and involved in the student's life, and judgmental in decision-making.

The majority of staff members interviewed by Zellman believed that a pregnant teenager had "wasted her potential", and that her chance of educational and vocational success were greatly reduced, no matter how great her capability. In their view, parents do not fit either socially or psychologically in the regular school. The experience of pregnancy and parenthood leaves students more sophisticated, more sexually knowledgeable and more interested in adult concerns. While willing to make reasonable efforts to help pregnant students cope with pregnancy, the researchers found school staff to be generally unwilling to invest a great deal of extra energy in students who have narrowed their options.

Considering the factors restraining school districts from responding to the problems of student pregnancy and parenthood, the presence of a highly motivated individual seems necessary for the establishment of a special program to serve this group, given the leadership vacuum at the federal, state and local levels.

Although state education agencies are in a unique position to provide leadership for local efforts, few have chosed to do so (Helmrich, 1981).

Alternatives to regular school programs may be sponsored by school boards, universities, hospitals, county health departments, and/or various community agencies. Collaboration by a number of institutions or organizations makes possible a more comprehensive set of services that can respond to the teenager's unique medical, social, psychological, and educational needs (Walz & Benjamin, 1980). The Y-MED (Young Mother's Educational Development) program in Syracuse and Onandago Counties (NY) is a good illustration of a cooperative community effort to respond to the needs of this population (Osofsky, et al., 1968; cited in Walz & Benjamin, 1980).

Although contributing to a sense of isolation, education in the home may be necessary in some cases. The Lafayette Parish Homebound Program in Louisiana (Kink, 1979) has included the teaching of pregnant girls since the 1950s. The program has since been expanded to include a special class for pregnant girls which operates as an alternative educational program. A positive outcome of this program has been the establishment of committees concerned with teenage parents throughout the state. Accountability studies reveal that approximately 80% of the program participants complete their education and are gainfully employed.

Of 125 cities surveyed with a population of 100,000 or more (Guttmacher, 1981), 107 reported having some kind of special programs for pregnant teenagers. Most programs, however, were small. Only 31 cities had programs providing services for 1,000 or more teenagers per year. About 8 in 10 had programs that provided counseling and classes in nutrition, family life and health; 3/4 offered sex education classes. Only 1/2 either referred for or offered contraceptive services; 2/5 had pregnancy testing; and 1/4 offered abortion services.

In 92 of the cities providing data, only 20% of the teenage mothers who had given birth during the year were served by special programs. Since these were the largest cities with the most advanced programs, it seems almost certain that substantially fewer than 20% of pregnant teenagers are served by such programs nationwide.

The most significant needs for teenage mothers nationwide are facilities, funds, and staff to provide infant day care (Guttmacher, 1981). Other needs reported are outreach, support, foster care, legal assistance, psychological counseling, and prevention of child abuse.

Assessment and Diagnostic Procedures

Once pregnant adolescents are in the school system, how do agencies, counselors, and school psychologists assess their needs? In order to address this issue, considerations relating to the topic of assessment and diagnosis for this population will first be defined. Specific procedures used by schools and community agencies for diagnosis and assessment will then be reviewed.

Pregnant students enrolled in the schools represent a distinctive segment of the adolescent population. They can be considered not only as sexually active teenagers, but also young people, who, for the most part, have failed to prevent unplanned pregnancies. Many are single, and have yet to make the conscious decision whether to terminate the pregnancy, give up the baby for adoption, or keep and rear their offspring.

These students fall into the "high risk" category of students likely to need support and counseling services due to social and emotional problems which may have contributed to their becoming pregnant.

In his involvement with, and observations of, unmarried pregnant adolescents at an adolescent guidance clinic, Curtis (1974) found these adolescents to be "frightened, lonely girls caught in a cycle of dependency and deprivation". He also found that these girls had never developed trust and often used defense mechanisms such as hostility and defiance of authority. "In working with them," he stated, "it is important to establish some measure of trust" (p. 100).

An important consideration to take into account when assessing the needs of pregnant adolescents is parental influence, particularly the role the mother plays in the lives of these students. Of the 30 pregnant girls in Curtis' study, less than half (13) reported having a close relationship with anyone in their immediate families; of these, father was specified once and mother nine times.

In another study of 48 adolescent girls under age 17 who registered for prenatal care at the Adolescent Guidance Clinic of Mt. Sinai Medical Center, the authors (Young, Berkman & Rehr, 1975) concluded that maternal influence pervaded every area of planning that the teenage daughters engaged in for themselves and their expected babies. These girls and their families had little contact with social agencies other than welfare departments. Results obtained from three phases of social service interviews indicated that 4/5 of the girls named their mothers as the "most significant" person in their lives. When the mothers planned for their daughters to continue living in the family home, almost 3/4 of their daughters concurred; when the mother planned to have the babies brought to the family home, almost 2/3 of the daughters agreed.

Actual arrangements that the girls made for the babies present even stronger evidence of their mothers' importance in the decisions. Almost 90% of the daughters brought their babies to live in the family home. Another study (Grow, 1969; cited in Young, et al., 1975) reported similar statistics.

In a study investigating decision-making among females under 18 with unplanned conceptions, Rosen (1977) collected data on parental involvement by questionnaires. Results indicated that few subjects sought parental advice when they were first aware of possible pregnancy; a larger proportion turned to their male partners or to friends. Once pregnancy was confirmed, the mothers had influence on half or more of the respondents; this was found to be most significant for the white adoption and the black abortion groups.

Maternal influence is greater with those planning on giving their baby up for adoption. When compared to that of the other groups, the mother's influence was significantly more important than that of girl friends for all groups except those white adolescents who planned to keep their babies. This group tended to be most influenced by the male partner. In fact, this was the only group for which the male partner's influence was significantly more important than that of the mothers.

In terms of maternal influences being important for black girls choosing abortion, this option is considered as a rather deviant solution among blacks. Blacks, especially males, tend to view abortion as genocide and are strongly opposed to it, whereas keeping the child is a fairly acceptable and traditional solution to out-of-wedlock pregnancy (Rosen, 1977). Consequently, blacks choosing abortion indicated little support from either friends or male partners. Their need for support from someone before taking this negative step may be why the mother's support was sought out, since she would be more likely to empathize with her daughter's plight, and to provide financial assistance. The third finding was that maternal influence was positively associated with conflict; that is, those who experienced conflict in decision-making tended to turn to their mothers for support.

Prior to the Supreme Court decision on abortion, the single girl who became pregnant had almost no choice but to involve the parents in the pregnancy. Although she may have dreaded their reaction, it was almost impossible to keep her condition a secret (Bowerman, 1963; cited in Rosen, 1977). Today the pregnant minor has a crucial new option--it is frequently possible for her to raise the $150 or so needed for a legal clinic abortion. She is able to skip a day of school and be home on time for supper. So it follows that, when parents are involved in a daughter's pregnancy, it is likely because the daughter has chosen to include them.

The group least likely to be influenced by the mother were those girls who planned to remain single and keep their babies. Thus, they were less likely to rely on parents for financial support or care of the child. More of this group lived with male partners (12%) and fewer with mothers (59%) than any other category. They did not feel guilty or ashamed to be single parents and made comments such as "I'm very willing and capable of taking on this responsibility that will last my lifetime," or "I want to prove to myself and others that I can handle the situation" (Rosen, 1977, p. 9).

It is obvious from these studies that the mothers of many of these girls are not only crucial in implementing plans for the girls' futures, but that they also play a significant role in decision-making about the pregnancy, care of the babies, and in enabling their daughters to pursue their educations. Although during the assessment and diagnosis of the pregnant student's needs there is likely quite a bit of uncertainty in planning, it seems crucial to involve significant family members in this early stage whenever possible for both social and emotional support, unless circumstances do not permit. Such extenuating circumstances where parental involvement would not be feasible will be discussed further in this chapter.

In describing a comprehensive role for the psychologist in the diagnosis and assessment of the pregnant teenager's needs, I will refer to Foster and Miller's (1980) description of the special needs of this population, and then give an overview of how appropriate school personnel and community agencies go about assessing these needs when working with pregnant teenagers.

1. The first need for the pregnant adolescent is acceptance by her peers. Depending on this particular peer group, pregnancy may be an acceptable occurrence, or it may result in alienation.

2. The second need (she may feel) is emancipation from parents, particularly if the pregnancy forces her into complete dependency on them. In many cases, the girl's mother may take over decision-making without consulting her daughter or allowing her to express her feelings.

3. The third need is to be able to express her feelings to an unbiased caring adult, free from constant judgement or fear of reproach.

4. Mutual self-disclosure is the fourth need. To have professionals share and reflect her feelings, experiences, and values about pregnancy is basic to her formation of perceptions of motherhood. Or, if she chooses to terminate her pregnancy, she needs to feel acceptance or acknowledgement that this is a viable option.

5. Fifth is the need to be understood despite language barriers. Since the language of adolescence is an important aspect of the maturational process, the professional mentor must seek constant feedback and clarification of information and instructions that are given.

6. The sixth need is to be able to accept the changing body. The pregnant adolescent may respond to this by denying the pregnancy or by refusing to wear maternity clothes.

7. The last need is to make a decision on continuing her education. The professional should attempt to encourage her to continue her schooling as long as possible and to return as soon as is feasible after the birth of the baby (Moore, 1978; cited in Foster & Miller, 1980).

There appears to be no doubt that pregnant adolescents perceive themselves in a way that is unlike their non-pregnant peers. In one of the few studies done to examine the self-concepts of pregnant adolescents, Zongker (1977) found that school-age mothers exhibited poor self-esteem, feelings of inadequacy and unworthiness, and were decisively more dissatisfied with their family relationships and physical bodies. Conflict, unrealistic expectations, instability and defensiveness were also found, as well as indications of maladjustment and personality disorders.

Interviews were conducted by this author with a variety of personnel both in the public schools and in community agencies in order to determine how persons having significant involvement with this population assess the pregnant adolescent's needs.

School Personnel

Within the schools, counselors (hereafter also refers to social workers, psychologists, and home economics teachers) and nurses appear to be the most likely persons to receive such referrals. For the most part, referrals are self-initiated; occasionally, a teacher may refer. Since it is not uncommon for the young, pregnant adolescent to withhold this information from other adults who could be of assistance until late in the pregnancy, the regular teacher's role becomes very important (Duxbery, 1976). Because the teacher may be the first adult the young mother seeks out, the role of referral may often fall to the teacher. Particularly, if after examining their own attitudes toward adolescent pregnancy, they cannot in good conscience be supportive, it is mandatory that they refer the student to someone who can be. This was also true for male counselors, who tended to feel somewhat uncomfortable counseling the pregnant girl.

The majority of nurses and counselors use an informal method of needs assessment. If the girl has had her pregnancy confirmed, it is usually a matter of making certain that she is aware of all the options, i.e., adoption, abortion, etc., and then connecting her with the appropriate community agency for proper medical assistance or prenatal care. The nurse or counselor may then explore the family situation--have significant others been told? Is the male partner involved? What about financial assistance? Have you thought about how you can continue your education?

When the pregnant girl, however, comes to the nurse or counselor and says "I think I am pregnant," or "Where can I get an abortion?" she frequently has not yet had the pregnancy confirmed; thus, the first step is getting the girl to an agency for pregnancy testing. Even though several such facilities exist, many teenagers don't know where to find them. Pregnancy testing can be provided through public health clinics, hospitals, family planning clinics, some schools, and pharmacies. Home pregnancy tests have become increasingly popular, but are no substitute for a lab test and pelvic exam (Guttmacher, 1981). Abortion clinics also do pregnancy testing and examinations. If the test is negative, then the next step is providing birth control information to the student and making sure they know where to go to obtain it.

If pregnancy has been confirmed, however, then this is the time for the professional to let the pregnant girl react and express her feelings.

These reactions vary, of course, depending on the individual situation. One school nurse interviewed told of how one student, upon learning she was pregnant, was in a complete state of shock and just "stared ahead". It took several minutes for her to utter any response at all. Another girl reacted with "I didn't know you could get pregnant before you turned 17". One school nurse related how she discoved a five month pregnancy while doing a scoliosis check. The student, a Southeast Asian, was married, had suspected pregnancy, but had not yet seen a doctor. The counselors stated, however, that most girls are ready to talk at that point.

The second question most frequently asked by nurses and counselors in assessing pregnant students' needs is "Who else knows about this pregnancy?" If the girls has not told her parents, the professional will usually attempt to encourage her to do so for reasons of support and possible financial assistance. Frequently the girl will express fear in telling her parents, whereby the nurse or counselor may offer to be with the girl when she tells her parents. A few counselors said that they used role-playing as an aid in determining the best way for the girl to tell her parents. At that time, the professional will also ask about the male partner to determine whether to involve him in the decision-making. This is greatly encouraged if at all feasible.

Occasionally the pregnant girl's mother attempts to take over the decision-making, in which case the professional may attempt to work through that by allowing the girl to express her feelings, or by talking with the mother and daughter together.

In discussing options for pregnancy resolution, the nurse or counselor typically presents these and discusses each in an objective manner. While an attempt is made to be nonjudgmental these professionals admitted that it is difficult due to their own biases, to try not to persuade these young girls toward a resolution such as abortion or adoption. They noted, however, that once a girl has made up her mind to keep the baby, there is usually no changing that decision; particularly when parental support is given. If this option is chosen, the professional will then help the girl to obtain proper prenatal care.

Another important matter to discuss in the needs assessment is financial status. One counselor, in fact, felt that this was one of the most frequent aspects she dealt with in addition to parental reaction. Questions such as "How will you afford the abortion?" or "How will you support your baby and yourself?" are posed to the teenager. If parents are to be involved, can they afford to support another dependent? Are they willing to provide financial assistance?

The final important aspect covered by nurses and counselors is discussing how the pregnant girl will complete her education. The majority of counselors and nurses felt that the best way to do this was to refer the girl to an alternative school, where she would have a sense of camaraderie with other pregnant students. This is particularly important when the girl is of junior high school age, since she is likely to be the object of jokes or rude comments. Pregnancy appears to be more acceptable at the high school level. Several nurses and counselors felt that there really were no adverse affects on the pregnant girls who chose to remain in the regular school. It was pointed out, however, that because of the availability of a nursery, the emotional support, and the prenatal classes that are offered at the alternative school, that this would probably be a more conducive learning environment for the pregnant teenager.

Conclusions from these interviews with school nurses and counselors reveal that all attempt to conduct an informal method of needs assessment beginning with confirmation of pregnancy; obtainment of prenatal care if the girl has opted to keep her baby, and finally, ensuring that the pregnant student is referred to the appropriate community agency for further intervention.

Community Agency Personnel

Respondents from community agencies also conducted a needs assessment through interview techniques. Some have specific aspects of pregnancy resolution which they deal with, however, and conduct their interviews accordingly.

Birthright, (Note 1), for example, is an organization which provides assistance to pregnant teenagers who opt to continue their pregnancies to term. They provide pregnancy testing at no charge through doctors in the community who volunteer their services to Birthright, but refuse to discuss or refer the girl for contraception if she is not pregnant. If she is, they encourage her to consider the option of keeping the baby or giving it up for adoption. Their main objective is to provide support for the girl through a caring, nonthreatening attitude. Parental and male partner involvement is encouraged. Their primary purpose in assessing the needs of the pregnant girl is to let her know that there is help available to her should she decide to keep her baby, or support should she decide to adopt out. They then see to it that she is referred to the particular agency that will best meet her needs, i.e., adoption agency, social services. While they are very willing to help the pregnant girl in any way possible, they do not explore alternatives in pregnancy resolution, nor do they attempt to take the place of social service agencies. If the girl wishes to obtain an abortion, they are unable to assist her, but assure her that they are there to help if she changes her mind. It is not uncommon for the Birthright counselor to give the girl their home phone number in case she needs to talk.

At Planned Parenthood of Iowa, (Note 2), the counselor's role begins once pregnancy has been diagnosed. During the initial session, the counselor attempts to determine whether or not the pregnant girl has decided to terminate her pregnancy. If the pregnancy is to be carried to term, then the counselor refers the girl to either an adoption agency, or encourages parental involvement if the girl decides to keep the baby. Depending on the circumstances, parental involvment is also encouraged when the girl decides to have an abortion. An example of when this would not be feasible is the girl who stated to the counselor that her parents would "make her have the baby" and that she should "suffer the consequences of her mistake". It was decided that it would be better not to inform the parents, then an abortion may be performed at the girl's request. Planned Parenthood does not continue to see the client unless she has decided to terminate her pregnancy, in which case arrangements are made for an abortion and pre-abortion counseling. Although post-abortion counseling is not mandatory, it is always available should the girl request it.

The Young Women's Resource Center, (Note 3), funded by United Way of Central Iowa, provides services for young women ages 13-22. They receive many referrals from teenagers who either suspect they are pregnant, or whose pregnancies have already been confirmed. Assessment of needs is also by interview, with the focus on one-to-one problem solving. Counselors are nonjudgmental and attempt to provide a caring, supportive atmosphere where the pregnant girl can feel comfortable expressing her feelings and reactions without fear of rejection. Clients are encouraged to return, especially if they need assistance and support in decision-making about pregnancy resolution. Here again, parental and male partner involvement is encouraged when feasible.

To conclude the majority of school personnel and community agencies coming into contact with pregnant teenagers use informal means of needs assessment once pregnancy has been confirmed. All attempt to provide a supportive, nonthreatening atmosphere in which the pregnant teenager feels free to discuss her feelings about the many difficulties surrounding pregnancy. All attempt to involve the girl's parents and/or male partners whenever this is possible since they may often provide a strong support when the pregnant teenager needs it most.

Adherance to the principles of volunteerism and informed consent requires at least that all comprehensive programs provide their patients or clients with a list of the risks, benefits, and consequences of both maternity and abortion; that they present the alternatives open to them, and the resources available for needed care, whether it be medical, psychological, or financial assistance (Guttmacher, 1982).

Intervention

Once the intake interview has been completed, and information has been provided to determine how a girl and her family are coping with the pregnancy, then a plan of individual or family treatment may be defined according to the special needs of the girl and the social situation which surrounds her.

School psychologists are in a position to be a key member of the health-care team in the support and counseling of the adolescent pregnant student. This represents a unique opportunity and responsibility. How then, may psychologists and other related professionals implement intervention options? Have previous interventions been successful? To address these issues, I will first discuss the role of the regular school, then current intervention techniques used by both school and community agency personnel. Finally, I will attempt to define the role of the professional and present a method of goal-setting in which the school psychologist may plan appropriate interventions.

Role of the Schools

Increasingly, schools have recognized that they can play a significant role in providing sufficient education to prepare pregnant teenagers and young mothers for the most challenging occupations they can master (Walz, et al., 1980). Since few schools have any policies or procedures that extend past the point at which a pregnant student is "supposed" to transfer out, many pregnant students do not elect to transfer to a special school. Therefore, support from the regular school staff is desirable.

A major barrier to serving the needs of pregnant students in regular schools, however, is the widespread conviction among staff that pregnancy is the student's, and not the school's problem (Zellman, 1981). One of the junior high school nurse's that I interviewed felt that administrators get "very uptight" when a girl becomes pregnant at the junior high level, and that she is urged to persuade the girl to attend an alternative school. This particular nurse did not feel that the pregnant girls had an adverse effect on the student body. There would be, she continued, some students who would ridicule her, but she stated that she counseled these students, whereby they would frequently become the pregnant girl's ally.

Another junior high school nurse felt the exact opposite to be true - that the presence of a pregnant girl had an extremely disruptive effect on the other students. Because they are at such an impressionable age and are so curious about sex, some who are at experimental stages may decide that they'd like to have a baby also.

One of the roles of the school is to provide students with skills that one needs to function in an adult society. Educational needs of the pregnant adolescent become increasingly important because of her need for financial independence. Relationships with parents and with the father of the child may present conflicts which the young women is unable to work through without assistance. Helping them to adjust psychologically to their new status is of utmost importance.

Studies of Intervention Effectiveness

Dailey (1971) attempted to isolate the parameters of a counseling model that would be appropriate for pregnant junior and senior high school students. Based on previous research, he determined that pregnancy caused a maturational crisis involving poor self-perceptions and perceived relationships with the subject's significant others.

Results of the study indicated that group counseling can provide a means of resolving the maturational crisis that pregnant students enrolled in schools experience. Perceptions of self and mother were the variables most affected by the group counseling experience. Perceived relationships between the father and the baby's father were closely identified and much hostility was voiced toward the baby's father. Attendance data indicated that counseling aided in preventing students from dropping out of school. Comparisons of follow-up data with data gathered prior to the baby's birth indicated that the counseling model had present and personal effects before the baby's birth and future and other oriented effects following the baby's birth.

The following conclusions were drawn from all parameters of the model evaluated: (1) There were positive results from the retention of the same counselor for each group, contribution of topics by the participants and focusing on topics of present and future. (2) Form groups with regards to age and trimester of pregnancy. (3) Use the model only during double school periods. (4) Use rooms where chairs can be formed into a circle.

Current Intervention Techniques Used by Schools and Community Agency Personnel

In interviewing school nurses and counselors, I found that all were involved in varying degrees of intervention, and that they favored varied intervention techniques in their involvement with pregnant students.

Probably the one aspect of pregnancy in which all nurses and counselors felt the need to intervene was decision-making about the baby, presenting all options, and examining these in accordance with each girl's particular situation. They also become quite involved with either the teaching of prenatal care, or in making referrals to a doctor where she can obtain prenatal care.

Several home economics teachers are involved in teaching child development classes, where books and pamphlets are provided in addition to showing films and obtaining speakers. For example, an adoptive parent was asked to come and speak about what it was like to adopt a child, or a teenager who had given her child up for adoption would be invited to speak about her experience.

Another important aspect of intervention that counselors and nurses deal with frequently is finances. This includes advising the pregnant girl about where to go for financial aid, and even helping her to fill out essential forms. A major problem in this area according to professionals in the schools, is getting the pregnant girls to be realistic; for example, she may be unaware that it is impossible to rent her own apartment, pay for transportation and food for her and the baby, and still have money to spend on clothes and recreation on the ADC budget. The counselor may help her to devise a system of budgeting her income so that it stretches out over the month.

Educational intervention was felt to be extremely important by all nurses and counselors who were interviewed. No matter what the circumstances, all try to make every attempt to keep the pregnant girl in school. Of course, this is much easier to do at an alternative school where there is a nursery. If the girl is absent for any length of time, a home visit may be made to determine how best to work out the problem. School social workers are often the persons to do this.

The majority of nurses and counselors felt that they were either too busy or that they were not trained to do indepth counseling. They noted, however, that there did not always appear to be a need for this, since many pregnant girls do work out their own difficulties with the aid of parents, friends, or male partners. When there is no support from these significant others, then there is often a need for more indepth counseling. A few community agencies provide this service. Only one agency surveyed, however, provided counseling on a long-term basis; this was the Young Women's Resource Center. They will see clients individually for counseling, or in a group setting. At one time they began a Young Mother's Support Group. They were unable to sustain members, however, due to weather and transportation problems, until finally the group was phased out.

Counselors from this agency will also provide intervention on an outreach basis, depending on the needs of the pregnant teenager. Another activity in which these counselors become involved is speaking to groups of teenagers at regular schools about their services for pregnant teenagers and teenage mothers.

Most community agencies, however, such as Planned Parenthood and Birthright, see the pregnant teenager for an average of two sessions, when hopefully, a decision about the pregnancy will be made. Planned Parenthood would discontinue intervention unless a decision to terminate the pregnancy has been made. They would then continue intervention with abortion counseling and making arrangements for an abortion. Birthright would discontinue intervention unless a decision to keep the baby has been made - then they would intervene by exploring the alternatives of adoption, or keeping the baby. If the former is chosen, then the teenager would be referred to an appropriate agency.

Counselor's Role as Related to Six Emotional Crises of Pregnancy

Facets of the counselor's role as related to six emotional crises that develop during an adolescent pregnancy were discussed by Foster & Miller (1980), and by Zellman (1981). The first crisis for the pregnant adolescent is confirmation of and reaction to pregnancy. After conducting an initial interview, the counselor can explore some of the client's feelings and fears. After the diagnosis, the counselor schedules a time to meet again with the adolescent. Depending on the circumstances, the counselor may elect to continue with counseling, or refer her to a family planning clinic if she is not pregnant. The counselor may need to allow time for the adolescent to express anger, elation, or to deny the diagnosis. The emphasis must be on the establishment of a trusting and supportive relationship, since many pregnant girls feel free to explore their feelings only after acceptance by the counselor has been demonstrated (Sharpe, 1975).

Telling parents about her condition is the second emotional crisis for the pregnant adolescent. If the adolescent is very fearful about this, then the counselor can provide assistance in developing an approach. In my interviews with professionals in the public schools, I found that some had done this effectively through the use of role play and planning. Others suggested bringing the parents into the office and being there as a support person if needed.

The father of the baby should ideally be brought into the picture if the adolescent wishes that he be told. If marriage is chosen, then the couple should be offered marriage counseling. If the choice of the adolescent is to have an abortion without parental consent, and the counselor is unable to accept this alternative, then the adolescent should be referred to another resource.

The third emotional crisis is making a decision about the pregnancy. This must be made within the first 12 weeks. If the alternative to continue the pregnancy is chosen, then the adolescent must decide whether to keep the baby or to give it up for adoption. It is the counselor's responsibility to present all viable alternatives and to provide an open and honest environment in which the adolescent may explore each opportunity. If termination is selected, the adolescent will require additional support and counseling before and after the abortion.

The counselor will need to assist the adolescent in coping with the many frustrations of pregnancy as integrated with adolescence, as well as attitudes of people encountered.

The fourth crisis encountered by the pregnant adolescent is making decisions about continuing her education. The role of the counselor would be to help her find alternative educational programs (if these exist in the community), or to help her cope with the possibility of negative peer reactions in the regular school. She may feel singled out and alienated, and have difficulty coping with such reactions. If she elects to drop out of school, then the counselor can assist in helping her plan for returning at a later date.

Planning for labor and delivery is the fifth crisis. Helping the adolescent to accept all the changes that are taking place within her body and providing an opportunity for the adolescent to develop adaptive mechanisms to deal with labor and delivery are the counselor's responsibility. Resources such as childbirth and Lamaze classes should be made available to the adolescent. The counselor could assume the role of monitor and go through labor and delivery with the adolescent. He/she would be a familiar, trusted person who could interpret her anxieties to the mother or hospital staff. A family member may be encouraged by the counselor to serve as a monitor. This person should be aware that the young, pregnant girl displays many regressive behavior problems, i.e., assuming the fetal position, calling for her mother, becoming overly dependent, and crying erratically (Foster, et al., 1980).

The sixth and final emotional crisis facing the adolescent is making decisions about the baby. Many decisions will have to be made about the baby's care if the adolescent elects to keep it. Or, if the baby is being put up for adoption, the counselor can be invaluable as a support person to reinforce and help her accept her decision. During the postpartum period, the counselor should be available to provide additional support, and may assist in identifying vulnerable areas in the mother-infant bond.

Based on the interviews with school counselors, it appears that many handle pregnancy cases along with their already heavy caseloads. Many find it frustrating in that they do not feel there is enough time to become really involved, given the intensive one-to-one involvement necessary to counsel a pregnant student. As stated earlier, school counselors felt that they lacked the training for in-depth counseling, since they generally deal with academic and vocational advising.

Need for Psychological Counseling

In Zellman's (1981) study of schools and teenage pregnancy, one school counselor was found to voice a common thought: "I'm an academic advisor, not a therapist; I'm not trained to do this, and I don't want to" (p. 67). Regular teachers were also found to share this view. In schools with full-time nurses, the situation was found to be similar to that of the counselor - too many other duties and lack of training in psychological counseling may cause them to be unable to provide extensive assistance.

The need for school psychologists to provide psychiatric intervention to pregnant students, i.e., develop ego functions, encourage appropriate aspirations, and to provide assistance in goal attainment, was demonstrated in a study of 15 pregnant teenage girls by Babikian, et al. (1971). These authors attempted to evolve a concept that lent itself to psychiatric intervention. Predominant psychodynamic patterns were delineated into 3 factors associated with:

1. A strong identification with the mother (dependency vs. separation and individualization).
2. Unresolved oedipal conflicts (presence/absence of father). This is consistent with findings of Zongker (1977) who found fathers' absence to be a critical variable in comparison of pregnant and nonpregnant teenagers.
3. Social and peer influences - comparison to and identification with peers.

When ego functions were assessed, 22 of 30 patients showed extreme dependency needs, which, in addition to sexual acting out and pregnancy, were ascribed to a weak ego, unprepared for and unable to withstand the onslaught of strong sexual drives during adolescence.

The study also indicated a marked reduction of superego derivatives. The superego is the psychic structure responsible for containing unacceptable infantile urges and channeling them into socially acceptable drives. There was found to be only minimal shame or guilt concerning pregnancy and sexual behavior in the girls who came from broken homes.

Most of the patients had a poorly formed ego ideal - another aspect of a deficient superego. Their mothers were not accepted as an ego ideal; a self-rewarding system was lacking in that the girl's were unable to set up appropriate goals and rewards for self-accomplishments. Poor frustration - tolerance was also noted.

The patients in the study were amenable to treatment when seen in a group setting. It was concluded that, in order to effect change in the lives of these young women, therapy and vocational counseling are extremely important.

Goal Setting

Identifying treatment goals is intrinsic to management, evaluation and accountability in providing school psychological services. The client's perceptions of the problem are of great importance, and these problems may be structured as goals in treatment.

Recent researchers (La Ferriere & Calsyn, 1978; Smith, 1976; Woodward, et al. 1978; cited in Enos & Hisanago, 1979) cited the effectiveness of one particular goal-setting procedure - Goal Attainment Scaling (G.A.S.). This evaluation and treatment technique was developed by Kiresuk and Sherman (1968) and has since been widely used in mental health agencies. This highly flexible approach incorporates a method of goal definition as well as a procedure for measuring attainment of predetermined service goals. Highly individualized goals are set in conjunction by both client and worker.

Enos, et al. (1979) conducted a study using the G.A.S. method at a congregate care facility for pregnant adolescents in Fort Worth, Texas. Questions to be answered by a content analysis of treatment goals were identified by the technique's three-step methodology:

1. Major problem areas where change would be feasible or helpful are identified with the client at intake and then specified as treatment goals.

2. A set of predictions is formulated with the client regarding possible outcomes for each treatment goal. These are expressed in quantitative or behavioral terms. A follow-up guide is then developed in the form of a grid upon which the client's treatment goals and a set of predictions of possible outcomes are placed (See Chart A).

3. By calculating the G.A.S. score, the client's level of functioning at intake and at termination is determined in relation to the treatment goals and the predicted outcomes for each goal.

Results of the analysis are shown in Table 1. When mean G.A.S. scores at intake and at follow-up and the change scores were calculated, the largest gains were found to have occurred in psychological adaptation, educational adaptation, and interpersonal relationship categories. Moderate gains were found in medical resources and financial adaptation areas, and slight increases were noted in personal development. The change scores noted slight deterioration, however, in the sexual adaptation category. This finding was found to be consistent with data from a national study by Card & Wise (1978; cited in Enos & Hisanago, 1979), which indicated that efforts to deal with sexually active teenagers through sex education programs and by providing contraceptives have been largely unsuccessful.

The overall content analysis and the G.A.S. methodology helped the agency to identify the individualized goals that were emphasized in treatment. It also provided a means for evaluating outcomes of interventions by helping to identify areas of treatment success and areas needing improvement.

Books & Media

A wealth of books, filmstrip series, and pamphlets on teenage pregnancy are currently in existence to aid both professionals who work with these adolescents and pregnant adolescents themselves. The majority of school personnel and community workers interviewed stated that they frequently refer the pregnant teenager to certain reading materials, and make use of filmstrips which convey the attitudes of young teenagers such as themselves toward pregnancy. They are also used because they are thought-provoking, and stimulate discussion on options and decision-making about pregnancy.

Refer to the bibliography for suggestions on appropriate books and media for both pregnant teenagers and professionals who help them.

CHART A
Followup Guide

Predicted Outcome Levels	Individualized Treatment Goals	Scale A: Use of Birth Control Weight = 20	Scale B: Improve Grades Weight = 20	Scale C: Obtain Aid from A.F.D.C. Weight = 10	Scale D: School Attendance Weight = 15
	−2	Refuses to use any method of birth control after birth of baby	Does not work on math for entire trimester	Refuses to apply for A.F.D.C.	Refuses to discuss with worker why she fails to attend school regularly
	−1	Refuses to discuss birth control methods with worker	Attempts to continue her math education by herself	—	—
	−0	Discusses birth control methods with worker	Comes to math class at least twice a week	Applies for A.F.D.C.	Talks with worker once a week about why some girls drop out of school
	+1	Obtains birth control method from physician	Attends all math classes	—	—
	+2	Uses birth control method regularly and discusses it with boyfriend	Attends all math classes and takes home math book in order to work on problems	Receives aid from A.F.D.C.	Talks with worker at least twice a week about things that might lead her to drop out of school

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TABLE 1
Data Concerning Treatment Goals From Content Analysis

	General Categories of Goals and Individualized Goals Negotiated Among the Workers and Clients	Number of Scales Formulated by Goals	Percent of Total Sales
1.	Financial Adaptation	16	21.3
	a. Obtain aid from parents	1	
	b. Obtain aid from A.F.D.C.	7	
	c. Become employed	6	
	d. Obtain support from father of baby	1	
	e. Learn how to budget money	1	
2	Educational Adaptation	13	17.3
	a. School attendance	5	
	b. Complete high school	2	
	c. Improve grades	3	
	d. Arrange for child care in order to attend school	1	
	e. Obtain vocational skills	2	
3	Interpersonal Relationships	12	16.0
	a. Relationship with worker	1	
	b. Relationship with teachers	2	
	c. Relationship with peers	2	
	d. Relationship with siblings	2	
	e. Relationship with parents or guardians	3	
	f. Relationship with father of the child, boyfriend, or spouse (nonsexual)	2	
4	Psychological Adaptation	10	13.3
	a. Self-esteem	3	
	b. Awareness of feelings	1	
	c. Expression of feelings	2	
	d. Ability to trust	2	
	e. Reality testing	2	
5.	Sexual Adaptation	10	13.3
	a. Use of birth control	3	
	b. Obtain information about birth control	5	
	c. Dealing with boys in relation to sexual demands	2	
6	Medical Resources	9	12.0
	a. Control of weight for medical reasons	2	
	b. Use of prescribed medication	1	
	c. Seeking medical attention for self	2	
	d. Obtain information about admission procedure at hospital prior to delivery	1	

Monitoring Methods

One of the most difficult periods for any adolescent experiencing a pregnancy is after the birth of her child, or after pregnancy termination. Psychosocial problems in existence over a long period of time prior to pregnancy are not solved by the delivery of the baby. Many of the former doubts and uncertainties may recur, and old patterns of ineffective and self-depreciating behaviors often reassert themselves (Walz, et al. 1980). It is of prime importance, therefore, that the school psychologist continue to retain a strong bond with the adolescent teenager. Of the respondents whom I interviewed, all agreed that this could best be accomplished through regular telephone calls interspersed with personal visits. These are gradually decreased depending on individual adjustment.

School psychologists can provide valuable follow-up in helping to resolve family conflicts, i.e., older mother/younger mother, or providing other forms of family counseling. Because the mothers of pregnant adolescents play such an influential role in the implementation of plans for their daughters and the babies, much of the attention in counseling should be focused on the parents as well as on the adolescents (Young, et al., 1975).

Follow-up provides important information and data necessary for making decisions about changes or improvements in existing programs, or when working with other pregnant adolescents. Adolescents who have experienced childbirth may be of great assistance in helping other pregnant adolescents by participating in discussion groups and interactions regarding their own experiences.

Since having the baby is usually only the beginning of the real problem, there should be an attempt by the professional to have the adolescent become involved in postpartum education following the birth.

In the case of adoption or abortion, an individual session should be scheduled shortly afterward; thereafter, an "open-door" policy makes it possible for the adolescent to receive services as long as they may be needed and desired.

The school psychologist can also monitor the progress of the pregnant student who chooses to enroll at an alternative school or program by making periodic checks with both the student and the appropriate personnel at the alternative school. If the student requires support services, then the psychologist could see to it that the services are continued, if available, at the alternative school, and that staff are made aware of any special needs. Thus, if desired, the psychologist could function as a support person for the student as she readjusts to the regular school curriculum and inform regular school staff of academic progress while enrolled in the alternative program.

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Conclusions and Considerations

No one person or program can possibly solve the many problems that are associated with teenage pregnancy or deal with the multiple causes of adolescent alienation. The solutions must come from many elements of the society: federal, state and local legislatures, government agencies, schools, churches, media, youth organizations, health care and social agencies.

Although there is clearly a role for the schools in adolescent pregnancy, it is difficult for an individual school to provide the range and depth of services required in a program for pregnant teenagers. Given that school is a meaningful part of the life experience of the adolescent, each student should be able to earn her academic credits during pregnancy, find better ways of coping in the environment, and learn that she can have control over her life as she grows toward independence and self-identity.

At each school, simply raising the issue at faculty meetings would do a great deal in legitimizing school involvement. Presentation of data on school-site pregnancy, including the number of pregnancies and, of these, the number of students who are currently in school, the number who drop out, transfer to special schools and return to regular school, etc., would help clarify the dimensions of the problem. Committees could then be established for policymaking and would include nurse, counselor, social worker and psychologist. Referrals could be made to the committee by regular school staff, or by parents.

While providing pregnant adolescents with general information about community services and appropriate classes to enroll in is essential, this will do little to change the pregnant student's basic need to feel better about herself or to adjust psychologically to her new status. The key to developing a stronger sense of personal worth, therefore, is a strong counseling component that is both active and continuous.

The team member who is uniquely qualified to provide professional counseling and therapy to the pregnant student is the school psychologist. The many measures of low self-concept and disordered behavior indicate that a large number of pregnant students are psychologically maladjusted individuals. Research, furthermore, underscores the urgency for professional counseling.

The role of the school psychologist as a team member would include:

1. The establishment of a positive, nonjudgmental attitude toward the psychosexual development of adolescents, and the realization that many adolescents express these basic needs in sexual ways despite society's restrictive attitudes.

2. Organizing and conducting individual and group counseling sessions which provide a warm, accepting environment whereby feelings of shame and loneliness are dispelled. Self-defeating behaviors and irrational thoughts and beliefs are eliminated as the adolescents' come to recognize their positive assets.

3. Giving the pregnant adolescent a new sense of the future by presenting clear guidelines as to the choices she can make for herself and/or the pregnancy.

4. Providing continuous and extended follow-up through personal visits and/or regular phone calls which may gradually be decreased.

   a. Invite them to return to take part in discussion groups with other pregnant girls.

   b. Help to resolve family conflicts if appropriate.

   c. Provide for follow-up interview and re-entry counseling, if needed, when the student returns to the regular school.

   d. Inform alternative school of any support services which may be needed so that these may be continued. Forward psychological reports and academic information as needed.

The challenge is to develop creative ways of maintaining the pregnant teenager's linkage with the school, and to encourage them in ways that will increase their self-esteem and competence to be able to carry out responsible decision-making for both themselves and their babies.

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1. Birthright. Find your local chapter listed under "Catholic Charities", "Catholic Social Services", "Birthright", or "Birth Care", in the white pages of your phone book. National headquarters: 1346 Connecticut Avenue, N.W., Washington, D.C. 20036.
2. Planned Parenthood. Find your local chapter of Planned Parenthood in the white pages of your phone book. National headquarters: 810 7th Avenue, New York, New York 10019.
3. Young Women's Resource Center. 416 12th Street, Des Moines, Iowa 50309. Or look up your local United Way chapter in the white pages of your phone book.

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Hyperactivity in Children: Issues in Definition, Diagnosis, and Intervention

Joseph E. Zins • Charlene R. Ponti

Abstract: Hyperactivity is one of the more common behavioral problems in children. Numerous misconceptions and differences of opinion regarding its definition and etiology have contributed to the difficulties involved in assessing and treating the disorder. There is little evidence to suggest an organic basis for it, but increasing agreement that it represents a deficit in attention and in learning rule-governed behaviors and effective problem solving skills. While pharmacological treatment is most prevalent, the combination of operant and cognitive-behavioral approaches to intervention has a great deal of empirical support as an effective treatment.

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Introduction

School psychologists potentially encounter a myriad of children's behavioral problems every day. It is critical that they be able to deal effectively with these problems in order to maximize the effectiveness of children's school experiences and to avoid the possible long term consequences of inadequate treatment.

One of the more common behavioral problems faced by school psychologists is hyperactivity in children. For example, a recent survey by Siegel (1981) indicated that school psychologists ranked hyperactivity as one of the five most significant problems in terms of referral priority, while special educators listed it in the top ten. Others (e.g., Safer & Allen, 1976) have referred to it as one of the most common disorders referred to child guidance clinics. The Diagnostic and Statistical Manual of Mental Disorders (DSM-III) published by the American Psychiatric Association (1980) estimated that it occurs in approximately three percent of the school-aged population, while Lahey (1979) described this group as historically misunderstood and underserved. It therefore seems apparent that school psychologists need to be prepared to effectively intervene with such cases.

In this chapter we will define hyperactivity and discuss its major features, etiology and misconceptions. Following this presentation, a number of assessment strategies will be reviewed and then intervention and treatment methods will be addressed. The chapter will conclude with suggested sources of additional information.

We have made the assumption that readers primarily will be practicing school psychologists who have been trained in child psychopathology, assessment, and intervention techniques. As a result, thorough discussions of some basic issues are frequently not included. In these instances, however, additional sources have been identified where the interested reader may obtain more detailed, explanatory information.

Historical Perspective

Several authors have thoroughly summarized the historical literature on hyperactivity from various perspectives (e.g., Conrad, 1976; Lahey, Kupfer, & Delamater, 1979; Renshaw, 1974; Ross & Ross, 1976; Safer & Allen, 1976; Walker, 1977; Weiss, 1980). Therefore, we will present only the highlights of this literature.

In comparison to many other disorders, the record of hyperactivity in children is rather brief. The term was not included in Psychological Abstracts until 1973. It has become popular largely since the mid to late

1960s, although descriptions of the disorder have been published since much earlier in this century. For example, descriptions of Thomas Edison and Winston Churchill have led some writers to suspect that they were hyperactive (Ross & Ross, 1976; Walker, 1977). However, it is only in the last 20 years that hyperactivity has been clearly separated from other childhood behavioral problems.

It is generally acknowledged that the concept originated from the work of Strauss and his colleagues (Strauss & Lehtinen, 1947; Strauss & Kephart, 1955). They reported a number of studies which attempted to determine characteristics which would reliably differentiate groups of children with and without minimal brain injury. A number of characteristics were found (including hyperkinetic behaviors), and it then was argued that these symptoms (especially the hyperactivity) could be used to diagnose brain damage. In other words, "it was assumed that those characteristics frequently associated with a diagnosis of brain damage were indicative of brain damage" (Schwartz & Johnson, 1981, p. 171).

This circular argument was accepted by many clinicians, despite the fact that when the term "hyperkinetic impulse disorder" was first used (Laufer, Denhoff, & Solomons, 1957), it described a disorder which may or may not show evidence of organicity. Concurrently, there has been much confusion and controversy regarding the use of the term "minimal brain dysfuncton" (MBD) to describe these children. As discussed in a later section, research has failed to demonstrate that most hyperactive children are brain-damaged (e.g., Dubey, 1976; Ross & Ross, 1976; Safer & Allen, 1976).

Several social factors also have contributed to the increasing interest in hyperactivity (Conrad, 1976). One of these has been the pharmaceutical revolution in which that industry began to synthesize and manufacture many different psychoactive drugs including Ritalin and Dexedrine. In the mid-sixties pharmaceutical manufacturers increasingly promoted these medications in the medical journals for use with hyperkinesis. "This promotion was probably very significant in disseminating information concerning the diagnosis and treatment of this . . . disorder" (Conrad, 1976, p. 13).

Concurrently, there has been an increasing interest in child mental health and child psychiatry, especially in the past decade. Both the mass media and the professional literature have shown a vast increase in articles on childhood disorders. As a result, more professionals and lay people alike are aware of disorders such as hyperactivity and therefore seek treatment for it.

In addition to these issues, there also has been a related historical development in the definition of the term itself which is summarized in the next section.

Problems of Definition

It is likely that no other childhood psychopathological disorder has generated more controversy than hyperactivity in the 1970s (Werry, 1979). Numerous diverse diagnostic labels have been utilized in the vast literature on hyperactivity. These terms are more than mere semantics; they connote important philosophical and conceptual viewpoints which may have significant implications for treatment of the disorder. The terms hyperactivity and hyperkinesis are used more-or-less interchangeably, although the later appears to be preferred by medical practitioners. More recently, "attention deficit disorder" (with hyperactivity) has become increasingly popular and it is the label used in the DSM-III (American Psychiatric Association, 1980). Other common terms include minimal brain dysfunction or damage (MBD), hyperactive child syndrome, minimal cerebral dysfunction, and hyperkinetic reaction of childhood. While many behaviors may be associated with hyperactivity, all definitions have suggested that it is not a result of other disorders such as mental retardation, childhood psychosis, emotional disturbance, physical handicap, and gross brain damage. However, hyperactive behaviors unquestionably exist within these other diagnostic categories. We are concerned in this chapter with children for whom hyperactivity is their primary difficulty.

One of the major problems in studying hyperactivity is that there are frequent misconceptions and differing opinions, often resulting from the lack of agreement regarding its definition. It is not uncommon for a child to be labeled as "hyperactive" solely on the basis of his/her activity level. Many assume the existence of a single entity which may be operationally defined (Sandoval, Lambert, & Sassone, 1980). On a practical level, in our roles as school psychologists, we frequently have received referrals from parents and teachers for "hyperactivity." Upon further investigation, it is common to discover that the child is indeed very active, but that such behavior appeared to result from a lack of appropriate behavior management techniques. The point is that a high activity level in itself is not a sufficient justification for the diagnosis. Most children exhibit "hyperactive" behavior at various times (Ross & Ross, 1976). Additional support is required to make the actual diagnosis.

Similarly, a distinction must be made between "hyperactive" and "aggressive" behaviors. Recently, the first author had a child (who was new to the school district) referred to him by a parent who reported that the boy was "hyperactive" and in need of medication. As the author began to clarify the mother's concerns in consultation, he learned that she had done a great deal of reading on the topic and was presenting a "textbook" case. During observations and teacher interviews, it became increasingly apparent that the child was indeed very active, and his teachers also referred to him as being "hyper" in class. However, he also was overly aggressive and frequently hostile in his interactions with peers and adults, and often was referred to the principal for behavioral difficulties. Further consultation with his mother along with the developmental history indicated that these problems were of recent origin, and apparently began when the mother remarried. In addition, it was learned that, in the past year, the child had stabbed the family dog, cut holes in a new couch, and engaged in numerous other acting out behaviors.

This case illustrates our need to distinguish between hyperactive and aggressive behaviors, realizing that hyperactive children may exhibit some aggressive behaviors. While truly hyperactive children may have difficulty with peer relations, misconduct, and aggressiveness, these are not their primary problems. Both groups may annoy or irritate others through their behavior, but with the aggressive child, this annoying behavior is *directed* toward others rather than merely being a result of the child's clumsiness, inattention, etc. We acknowledge that this distinction is often difficult to make in practice.

A third popular misconception involves hyperactivity and MBD. In another case, one of the authors received a call from a parent of a child with whom he was working. The child had been diagnosed as hyperactive and was currently receiving treatment. The parent had just read an article in a popular magazine that referred to hyperactive children as being "brain damaged." As might be expected, the mother was frantic and upset that she had not been told this fact earlier by someone. In this particular case, the child had been seen by a pediatric neurologist as well as a neuropsychologist. The mother could, therefore, be given assurance that there was no evidence of MBD in her child and also told that hyperactivity does not necessarily imply MBD. The case illustrates another common misconception, that is, that *all* children who are hyperactive have a neurological dysfunction. In fact, most do not (American Psychiatric Association, 1980; Safer & Allen, 1976).

There are, of course, a number of other myths about hyperactivity. Many of these are addressed throughout the chapter. Others are more specifically discussed by Henker and Whalen (1980). The point is that many of the definitions are sufficiently vague to make assessment difficult and that these misconceptions further compound the issue.

If these are examples of what hyperactivity is *not*, then what is it? The next section addresses this issue and summarizes the extensive literature on the disorder.

Major Features of the Hyperactive Pattern

There have been numerous studies in recent years which have investigated hyperactivity to identify its essential features. These are summarized below.

Inattentiveness. There appears to be widespread agreement that hyperactive children have short attention spans, an inability to maintain attention, and that they do not appear to listen (Achenbach, 1982; American Psychiatric Association, 1980; Ross & Ross, 1976; Routh, 1980; Safer & Allen, 1976, Schwartz & Johnson, 1981). Research has begun to suggest that this feature of the disorder is at least as (or more) prominent than the activity level aspect (Douglas, 1972; Schwartz & Johnson, 1981). The DSM-III now lists the former category of "hyperkinetic reaction of childhood" (American Psychiatric Assocition, 1968) as "attention deficit disorder, with hyperactivity" (see Table 1), thus emphasizing the importance of the inappropraite inattention. These children also may have difficulty with selective attention (discrimination) relative to normal children.

Table 1

DSM-III Diagnostic Criteria: Attention Deficit Disorder With Hyperactivity

The child displays, for his or her mental and chronological age, signs of developmentally inappropriate inattention, impulsivity, and hyperactivity. The signs must be reported by adults in the child's environment, such as parents and teachers. Because the symptoms are typically variable, they may not be observed directly by the clinician. When the reports of teachers and parents conflict, primary consideration should be given to the teacher reports because of greater familiarity with age-appropriate norms. Symptoms typically worsen in situations that require self-application, as in the classroom. Signs of the disorder may be absent when the child is in a new or one-to-one situation.

The number of symptoms specified is for children between the ages of eight and ten, the peak age range for referral. In younger children, more severe forms of the symptoms and a greater number of symptoms are usually present. The opposite is true of older children.

A. *Inattention. At least three of the following:*
  1) Often fails to finish things he or she starts
  2) Often doesn't seem to listen
  3) Easily distracted
  4) Has difficulty concentrating on schoolwork or other tasks requiring sustained attention
  5) Has difficulty sticking to a play activity

B. *Impulsivity. At least three of the following:*
  1) Often acts before thinking
  2) Shifts excessively from one activity to another
  3) Has difficulty organizing work (this not being due to cognitive impairment)
  4) Needs a lot of supervision
  5) Frequently calls out in class
  6) Has difficulty awaiting turn in games or group situations

C. *Hyperactivity. At least two of the following:*
  1) Excessively runs about or climbs on things
  2) Has difficulty sitting still or fidgets excessively
  3) Has difficulty staying seated
  4) Moves about excessively during sleep
  5) Is always "on the go" or acts as if "driven by a motor"

D. *Onset before the age of seven.*

E. *Duration of at least six months.*

F. *Not due to schizophrenia, affective disorder, or severe or profound mental retardation.*

Source: American Psychiatric Association. Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, D.C.: Author, 1980. Reprinted by permission.

Note. DSM-III also provides for a diagnosis of attention deficit disorder without hyperactivity (same criteria, except child is judged never to have displayed signs of hyperactivity, Criterion C) and for the diagnosis of attention deficit disorder, residual type (child once met criteria for attention deficit disorder with hyperactivity, but hyperactivity is no longer present).

Impulsivity. Among the many deficits of hyperactive children, their impulsiveness has been emphasized repeatedly as a major (Achenbach, 1982; American Psychiatric Association, 1980; Barkley, 1981; Douglas, 1972; Ross & Ross, 1976; Routh, 1980; Schwartz & Johnson, 1981; Stewart & Ashby, 1981) or secondary feature (Safer & Allen, 1976). Differences in impulsivity between hyperactive and normal children have been frequently demonstrated (Meichenbaum, 1976, 1978; Ross & Ross, 1976) and these variations appear to reflect an inability to delay responding, to evaluate the nature of the problem, and to emit a correct response (Barkley, 1981).

Activity Level. Although excessive rates of activity were once used as the major distinguishing characteristic of these children, today it is more commonly acknowledged that heightened activity levels are symptomatic of many psychopathological populations of children (Barkley, 1981), not only of hyperactive ones. A major difficulty in this respect is determining whether a child's activity level is deviant. The problem is that there are no activity level norms for children (Ross & Ross, 1976), and reports and judgments about a child's behavior are often subjective, potentially biased (Sandoval et al., 1980) and dependent upon setting and measure utilized. To further complicate the issue, there is evidence to indicate that they have no more total daily body activity than normal children (Safer & Allen, 1976; Weiss, 1980), although there have been inconsistent findings in this regard (Werry, 1979). The problem appears to be related to modulating activity level appropriately, especially according to the setting (e.g., playground versus classroom). It is not uncommon to find a child who shows the behavioral problem only in some situations. Nevertheless, their behavior is frequently characterized by parents and teachers as "restless," "always on the go," "won't sit still," or "fidgety." These behaviors are most pronounced when restrictions are placed on the child's activity (e.g., in school).

Distractibility. Several authors have concluded and a number of studies have demonstrated that hyperactive children are more distractible than other children (Achenbach, 1982; American Psychiatric Association, 1980; Barkley, 1981; Bremer & Stern, 1976; Doyle, Anderson, & Halcomb, 1976; Routh, 1980; Schwartz & Johnson, 1981). Whether this feature is distinct from their inattentiveness remains to be demonstrated.

Although all of the above characteristics are often found in hyperactive children, questions arise regarding how many of them are essential for the diagnosis to take place. The incidence of the various behaviors may vary considerably depending upon the rating instrument, the observers using it, and the setting where the child is observed (Achenbach, 1982; Sandoval et al., 1980; Weiss, 1980). Furthermore, as noted in the DSM-III (see Table 1), the school psychologist conducting the assessment may not observe the symptoms at all. In the future, the specific behavioral criteria listed in the DSM-III may lead researchers and clinicians to more specific documentation of the disorder, and ultimately, to more agreement in diagnosis.

Associated Features

In addition to the primary features, there are a number of associated characteristics often found with hyperactive children. These are not as

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essential for the diagnosis of the disorder, but they are common in these children.

Specific learning disabilities or poor school achievement are found in many hyperactive children (Routh, 1980; Safer & Allen, 1976; Schwartz & Johnson, 1981). For example, in one study, over half of the hyperactive children failed at least one grade by the time they reached adolescence (Mendelson, Johnson, & Stewart, 1971). Safer and Allen (1976) report that 70-80% of the hyperactive children have learning disabilities, and that this tends to be a family characteristic.

Conduct disorders or behavioral problems are also common with hyperactive children (Campbell, 1976; Mendelson et al., 1971; Routh, 1980; Safer & Allen, 1976; Schwartz & Johnson, 1981) as are prematurity, peer difficulties, social immaturity, and low self-esteem (Safer & Allen, 1976). Others would include perceptual difficulties, fine motor problems, conceptual deficits (e.g., Schwartz & Johnson, 1981) and emotional lability (American Psychiatric Association, 1980; Porges & Smith, 1980). It should be noted that some of these difficulties may be secondary problems resulting from the primary problems and the subsequent environmental and interpersonal conflicts that may follow.

With so many potential characteristics and the differing views regarding essential or non-essential features of hyperactivity, it is not surprising that research findings are often confusing or contradictory.

The Syndrome Issue

While it has been argued that there exists a hyperactive syndrome (i.e., a set of behaviors that correspond to a single underlying dysfunction) (e.g., Porges & Smith, 1980; Routh, 1980; Safer & Allen, 1976), other authors have disagreed with this position (e.g., Barkley, 1981; Kenny, 1980; Ross & Ross, 1976; Weiss, 1980). Instead, they have conceptualized the disorder as a "class of heterogeneous, inappropriate responses maintained or caused by a variety of. . .factors" (Ross & Ross, 1976, p. 12). The classification refers to a group of children, some inattentive, some impulsive, some overactive, some distractible, and some having all of these problems (Barkley, 1981). Further evidence against the issue of a "hyperactive syndrome" was provided by Sroufe (1975) who reviewed several factor-analytic studies designed to substantiate the syndrome. He concluded that the studies provided little support for the existence of a syndrome.

Developmental Course

The DSM-III describes three characteristic courses for the hyperactive disorder. In the first, all symptoms continue into adulthood, while in the second, they disappear at adolescence. In the third, the attentional and impulsivity difficulties persist into adulthood, but the heightened activity level decreases (American Psychiatric Association, 1980).

A comprehensive discussion of the developmental course of the disorder is contained in Ross and Ross (1976). They describe the infant as difficult and irregular in physiological and psychological functioning. They may exhibit some minor physical anomalies such as widely spaced eyes or head circumference out of the normal range. In addition, they tend to be temperamental, restless, and to have irregular sleep patterns. By age 2 to 3, they continue to be active, talkative, and prone to accidents (Ross & Ross, 1976).

In the preschool years, hyperactive children usually become more serious behavior management problems for their parents. They continue to be active and aggressive and show the irregularity of movement and mood. They may have a low frustration tolerance and throw violent temper tantrums (Ross & Ross, 1976). Barkley (1981) believes that they are often retained in kindergarten because of their immaturity. It is at school entrance that they are most likely to be referred for treatment (see section, Age at Onset).

During the school years, they often experience academic problems (Safer & Allen, 1976) as well as peer difficulties and conduct disturbances (Ross & Ross, 1976; Safer & Allen, 1976). Life can easily become a vicious cycle for them.

Misconceptions about the course of the disorder surround adolescence. It has been commonly accepted that hyperactive children "outgrow" their behavioral problems once they reach their teens. Since gross motor activity levels generally decline at this time (Ross & Ross, 1976), many people have assumed that the hyperactive behavior disappeared totally. As a result of this belief, treatment often ceases. However, many of the difficulties that they experienced earlier continue to affect them, in addition to the fact that they now must face the "normal" problems that beset all adolescents. The available evidence indicates that hyperactivity does not completely disappear in adolescence, as they continue to be noticeably more restless, distractible, impulsive, and emotionally labile than their peers (Mendelson, Johnson, & Stewart, 1971; Ross & Ross, 1976; Weiss, Minde, Werry, Douglas, & Nemeth, 1971). Furthermore, they may continue to experience academic problems, a poor self-image, and attentional difficulties. Conduct disorders reach a peak at this time (Barkley, 1981) and, as might be expected, they tend to quit school more than their non-hyperactive peers (Ross & Ross, 1976). A discontinuance of treatment at adolescence therefore appears to be contraindicated.

While many of the problems continue to decline as the hyperactive teenagers reach adulthood, the group as a whole tends to achieve an overall lower socioeconomic status, to still be nervous and restless (Borland & Heckman, 1976), and to show more psychopathology and depression than would be expected (Weiss, Hechtman, Perlman, Hopkins, & Wener, 1979). A generally impulsive lifestyle appears to persist, and despite decreases in motor level, many problems continue well into adulthood (Achenbach, 1982; Routh, 1980; Schwartz & Johnson, 1981; Weiss et al., 1971). There is evidence to indicate that untreated children are at significant risk to develop later psychopathology (especially substance abuse and antisocial behavior) (Hartlage & Givens, 1982; Trites, 1979).

Other investigators have described a more positive prognosis. In the preliminary results of a long term follow-up study, Weiss (1975) noted that, as young adults, the previously hyperactive children adjusted surprisingly well once away from the situations with which they could not cope. Ross and Ross (1976) also suggested that with the judicious use of medication, manipulation of home and school environments, psychotherapy, and continued follow-up, the hyperactive child can develop into a productive adult. We wonder, however, how often such a comprehensive treatment regimen is strictly adhered to over the course of time. Before final judgments about outcome can be made, more controlled longitudinal studies are needed. At the present time, we must conclude that these children tend to experience some problems associated with hyperactivity into adulthood. The availability and implementation of comprehensive interventions will be instrumental in determining their long-term adjustment.

Prevalence. Based upon a review of numerous published reports as well as the authors' personal experiences, hyperactivity appears to be a fairly common childhood disorder. Several authorities have suggested that it is the most frequently referred problem facing child guidance clinics in this country (Safer & Allen, 1976; Stewart, Pitts, Craig, & Dieruf, 1966), with estimates that occurs in between 2 and 20 percent of the school-aged population (American Psychiatric Association, 1980; Conrad, 1977; Safer & Allen, 1976; Stewart et al., 1966; Wender, 1977; Whalen & Henker, 1976). A more realistic indication of its incidence is 4-5 percent of this age group (Barkley, 1981), or approximately one child in every classroom in this country (Whalen & Henker, 1980). However, it must be noted that, unfortunately, the estimates of incidence depend a great deal upon who is making the judgment. For example, Sandoval and colleagues (Sandoval et al., 1980) reported that only 1.2 percent of children were considered hyperactive simultaneously by their teachers, parents, and physicians.

In other countries, the incidence of the disorder has varied from that in the United States. In studies using the Connors Teachers Rating Scale (Connors, 1969; discussed in more detail later in the chapter under Assessment), children in four countries were identified as hyperactive according to a pre-selected cut-off score. The following percentages of children (listed in order of boys and girls) exceeded the cut-off score: midwestern U. S. town, 9 and 2; Munich, Germany, 12 and 5; Ottawa, Canada, 21 and 8; and Auckland, New Zealand, 22 and 9 (Trites, 1979).

Sex Ratio. Hyperactivity is much more common in boys than in girls as the above cross-cultural studies indicate. Estimates of the sex ratio range from 3:1 to 10:1 (American Psychiatric Association, 1980; Campbell, 1976; Lambert, Sandoval, & Sassone, 1978; Trites, Dugas, Lunch, & Ferguson, 1979).

Age at Onset. Although hyperactive children are frequently not referred for professional help until they enter school (or between the ages of 5 and 12) (Kenny, Clemmens, Hudson, Lentz, Cicci, & Nir, 1971; Routh, 1978), the actual onset of the disorder is probably between the ages of 2 and 3 (American Psychiatric Association; Barkley, 1981; Routh, 1980; Stewart et al., 1966). Once the children enter school, different behavioral demands are placed upon them, leading to referral. Social pressures also may be placed upon parents regarding their children's behavior. As a result of these events, the referral rate increases in the early school years. Furthermore, most young (preschool) children exhibit overactive, inattentive, and impulsive behaviors.

"These behaviors among children who will (at school age) be identified as 'hyperactive' may not be as differentiating at age 2 or 3 as they will be later on" (Routh, 1980, p. 59).

Behavioral Analysis of Hyperactive Behavior

The two preceeding sessions discuss a number of characteristics of hyperactive children, but they do not include consideration of the antecedents or consequents that may exert influence over the behaviors. In a thought-provoking article, Barkley (1981) speculated that hyperactive children have not only a deficit in attention, but also in "the acquisition of age-appropriate rule-governed behavior and self-control" (p. 140). They appear to have difficulty in shifting from external to internal control. In other words, they need to learn to shift behavioral control from social stimuli (e.g., other people) to internal stimuli (private events) and ultimately, to problem solving (Barkley, 1981), in order to overcome deficiencies in self-control. He further postulates that "from these difficulties can easily arise those impressions of poor concentration, impulsivity, lack of inhibition, poor social relationships, and poor academic achievement often noted in hyperactive children" (p. 140). As a result, they need to learn rule-governed behavior (and hence self-control) and problem solving techniques.

Definition of Hyperactivity

As the previous discussion has implied, there are numerous views of what constitutes hyperactivity. Trites (1979) has summed it up succinctly. He states that while many behaviors have been ascribed to hyperactivity, a parsimonious definition of the condition would most "likely refer to behaviors such as restlessness, impulsivity, distractibility, attentional deficiency, and a tendency to seek stimulus" (p. ix). The authors generally agree with this description and that included in the DSM-III (see Table 1), but we believe that the definition given by Barkley (1981) adds additional clarification that is helpful in understanding and treating the disorder:

> Hyperactivity is the developmental deficiency of age-appropriate attention and rule-governed behavior (self-control) that is present in the child since at least 2-4 years, that is pervasive in nature (cross-situational), and that cannot be attributed to mental retardation, psychosis, or gross neurologic, sensory, or motor impairment. (p. 140)

In addition, there most likely are some biological contributions to the disorder in some children. We also might add that hyperactivity cannot be understood independently of social and institutional contexts.

In concluding our discussion of definition, and prior to addressing the diagnostic process, we must mention some of our concerns about labeling children as hyperactive. As stated earlier, there are a number of misconceptions commonly held about hyperactivity. Therefore, use of the label can encourage the automatic use of prescription drugs (Barkley, 1981), lead to an assumption of brain-damage (with a decreased consideration of behavioral interventions), or serve as an "excuse" for behavior. A "loss of information" also may result as classification often involves consideration of only one aspect of behavior, in this case, usually the high level of activity. We therefore recommend the judicious use of the label. Further discussion of issues in the classification and labeling of children is contained in Hobbs (1975).

Etiology

At the present time, there appear to be two major views on the presumed etiology of hyperactivity: the organic disease (medical) model and the social-environmental (behavioral) model (Porges & Smith, 1980). While the two are not mutually exclusive, they do connote important differences in appropriate intervention strategies. The first approach suggests treatment of the inferred nervous system dysfunction through pharmacological, orthomolecular, or dietary techniques, while the later encourages psychological treatments (Porges & Smith, 1980). In many cases, a combination of the approaches may be the treatment of choice. The following is a brief summary of etiological issues and factors.

Organic Factors

One of the most common explanations of hyperactivity has been that it resulted from brain injury (or MBD), usually postulated to have occurred around the time of birth. For example, in the classification system formulated by the Group for the Advancement of Psychiatry (GAP) (1966), they describe a syndrome "frequently seen in preschool and young school-age children with cerebral cortical damage of a diffuse nature resulting from cerebral insult at birth. . ." (p. 266) and frequently characterized by hyperactivity, distractibility, and impulsivity.

While brain damage may increase the risk of hyperactive behaviors (Achenbach, 1982; Rutter, 1977; Werry, 1968), it does not always cause hyperactivity nor are all hyperactive children brain damaged (Achenbach, 1982; Barkley, 1981; Ross & Ross, 1976; Schwartz & Johnson, 1981). In fact, Safer and Allen (1976) suggest that the use of the term "brain damage" is inappropriate with these children since more than 95% of them have no evidence of an injured area of the brain. The DSM-III also states that a diagnosable neurological disorder is present in only about 5% of the cases. Routh (1980) emphatically states that he will not use the concept of MBD again until he is shown that the syndrome exists.

As a result of the overwhelming evidence in the available studies, we must conclude that there is little evidence that hyperactive children as a group are brain-damaged, and reference to the group in these terms appears clearly inappropriate. However, there is evidence in the literature that for some children, their hyperactive behavior may be related to biological factors.

Biological Factors

There has been an increasing interest in identifying a genetic basis for hyperactive behavior. An extensive review of these studies is contained in Ross and Ross (1976) and Cantwell (1975). At this time, it appears quite possible that there is a genetic component to some hyperactive behavior that may be hereditary in nature (Cantwell, 1975; McMahon, 1980), although additional research is required to substantiate this possibility (Barkley, 1981; Ross & Ross, 1976).

Physiological overarousal and underarousal have both been hypothesized as important factors in hyperactivity in children (Achenbach, 1982), although more emphasis appears to have been placed on viewing these children as seeking additional stimulation. Neurologic immaturity has been hypothesized since many (30-50%) show patterns of underarousal on EEG's (Hastings & Barkley, 1978). Zental (1975) proposed that because of a less than optimal level of arousal, they engage in higher rates of activity to increase stimulus input. However, there remains a need for further documentation through research before this hypothesis can be accepted and no definitive conclusions regarding the arousal state of the CNS of hyperactive children presently can be made (Ferguson & Pappas, 1979).

Chemical toxins such as lead poisoning (from ingesting lead-based paints, air pollution from leaded gasoline) have been postulated as possible bases for hyperactivity. David (1974) found some evidence to support this hypothesis, and it appears that increased lead levels may be a cause of some hyperactivity (Safer & Allen, 1976; Schwartz & Johnson, 1981).

An area that has received considerable attention and publicity as a possible cause of hyperactivity is that of it being an allergic reaction (or heightened sensivity) to food additives. The chief proponent of this approach has been Feingold (1975), whose book, Why Your Child is Hyperactive, became a national best-seller. Although the approach claims a wide following among many parents, it is based largely on "clinical impressions" rather than empirical research. Feingold suggests that these children have a heightened sensitivity to artificial coloring, flavors, and other food additives, and that these lead to hyperactivity for many of them. Unfortunatley, there is only weak research support for this as a causal factor (Achenbach, 1982; Barkley, 1981). Further discussion of this topic is contained later in this chapter and more extensively in the chapter on diet and nutrition by George Harper elsewhere in this volume.

To summarize this section, it is apparent that research has been unable to provide conclusive evidence of brain damage in most children. However, the studies suggest that there may be some subtle biological factors that may play a role in the development of hyperactivity. At this time efforts to identify a single etiological basis for hyperactivity generally have been unsuccessful (Kenny, 1980).

Psychological Factors

Not as much has been written about possible psychological, environmental, or social factors which may contribute to the development of hyperactivity. As a result, it is difficult to judge their potential influence on hyperactivity and to make definitive statements regarding their role.

There have been several studies which have shown that hyperactive behavior can be influenced by its consequences (Mash & Dalby, 1979; Porges & Smith, 1980; Willis & Lovaas, 1977). There also is some evidence to indicate that social situations, emotional difficulties, and social learning may lead to hyperactivity (Porges & Smith, 1980), and that it may be acquired as a function of direct reinforcement or through observational learning processes (Ross & Ross, 1976).

It should be clear that a child's environment (e.g., home and school) is also an important determinant as to whether a child is labeled hyperactive. For example, parents' child rearing practices or their personal beliefs about child development influence whether the child is identified as hyperactive by the family with a subsequent referral for a professional opinion. Similarily, one classroom environment may facilitate the development of some children, while being detrimental to others. It seems entirely possible that these factors can significantly influence children's behavior. The responses of adults (and others) can exacerbate the child's initial problems (and the child's behavior can similarly influence that of adults)-- the principle of reciprocal determinism.

While the need continues to exist for additional research to explicate relevent psychological factors (as well as organic, biolgically based ones), we believe that the conceptualization proposed by Barkley (1981) has much merit. As noted earlier, he postulates that hyperactive children have deficiencies in learning rule-governed behavior and in problem solving skills. Fortunately, these behaviors have been shown to be modifiable through behavioral methods (Lahey et al., 1979), which will be discussed later in the chapter.

According to Barkley's (1981) perspective, hyperactive children may have experienced some problem in the development of rule-governed behavior leading to self-control. It could result from (a) neurological dysfunction which inhibits the translation of linguistic stimuli into behavior; (b) inadequate training to adhere to rules presented in that language; (c) lack of internalized rules or self-speech resulting from training; or (d) deficient training in problem solving. Difficulties could be experienced in any of these areas, with those occurring in the earlier steps affecting the later stages.

It should be evident after reading this section that no one causal factor for hyperactive behavior has been found. It appears most likely that there are a number of potential causes and that several of these factors most likely interact to produce the behaviors in a given child. Furthermore, this conclusion implies that assessment and intervention strategies therefore need to be multifaceted.

Assessment

Prior to a discussion of specific assessment techniques and procedures, it is important to mention some of the difficulties inherent in diagnosing hyperactivity.

Potential Problems in Diagnosis

Most likely, the major problem in assessing hyperactivity is the lack of observable, objectively determined pathology (Sandoval et al., 1980). Clearly, this factor makes it difficult to diagnose the disorder. As noted earlier, there are not specific norms for activity levels against which a child can be compared. Therefore, problems arise in determining how inattentive, impulsive, distractible, and/or active a child must be prior to being referred and assessed. Contributing to this problem is the fact that parents and teachers have varying levels of tolerance for these behaviors. Furthermore, the behavior frequently varies from one setting to the next, with high activity levels not always noted.

A second factor is that reports are made by those who contribute to the child's environment (e.g., parents and teachers). Their attitudes and behaviors affect the child's behavior as well as their own perceptions of the child (Sandoval et al., 1980). It is possible for this factor to lead to subjective, biased reports about the child.

The problems discussed earlier regarding the lack of agreement in definition are another concern in diagnosis. The theoretical orientation to which the school psychologist ascribes will influence one's conceptualization of the problem, the diagnostic process utilized, and the resulting interventions.

Finally, it is often difficult to separate assessment and treatment. Therefore, there is some overlap in our discussions of these areas.

Diagnostic Process

As with any disorder, the assessment of hyperactive children must be comprehensive and multifactored. Several implications and guidelines can be drawn from the information previously presented in this chapter. In addition, it is evident that the approach utilized will be partially dependent upon one's assumptions about the disorder as well as on one's professional training. For example, it may be relatively common for medical practitioners to search for neurological causes of the disorder through the use of medical procedures. Our suggestions, however, are directed specifically toward the school psychologist and are based upon the conceptualizatoin of the disorder discussed earlier.

The assessment of hyperactive children must involve the gathering of information from a variety of sources and ideally within a number of social environments. Of necessity, it also should involve collaboration among parents, teachers, physicians, school psychologists, and other professionals.

The usual steps in the assessment process for the school psychologist are included in the following outline:

(a) Receive the referral; clarify through consultation as necessary.

(b) Interview parents to obtain relevant developmental, medical, social, and environmental information.

(c) Consult with present and past teachers to gain perspective on behaviors at school.

(d) Obtain information from other agencies and sources as appropriate.

(e) Request medical information and evaluation (as necessary).

(f) Observe child in several familiar settings.

(g) Conduct multifactored evaluation.

(h) Hold interdisciplinary team conference(s) to integrate materials and plan necessary interventions; monitor and follow-up with on-going consultation.

There are several procedures which will be utilized by the school psychologist in order to complete the steps outlined above. These include teacher and parent consultation/interviews, behavioral observations, and direct assessment of the child.

Teacher Consultation/Interviews. Referrals or requests for consultation are frequently made by a child's classroom teacher. Since they have extensive contact with a child, they are ideal informants about the child's behavior. Furthermore, other children in the classroom provide a "norm" against which they can judge the child's behavior. Experienced school psychologists are already aware of the wealth of information teachers can provide. In addition, teacher input is generally considered to be relatively reliable.

The purpose of interviewing the teacher is to obtain an overall picture of the child and his/her school behavior and to then narrow the focus to identifying specific concerns. Involving teachers and parents in the assessment process improves the accuracy of the diagnosis, increases the probability that they will participate in the intervention, and makes the chances for successful treatment more likely. Collaboration is essential. Extensive discussion of these issues is included in several texts (e.g., Curtis & Zins, 1981; Meyers, Parsons, & Martin, 1979) and is summarized later in the chapter.

In any interview, it is important to clearly identify the specific nature of the problem in behavioral terms. The key step in an applied behavioral analysis is to select the "correct" behavior(s) to modify. At the same time it is necessary to clarify the situations in which the behaviors occur and the responses of others to these behaviors (antecedents and consequating events). Asking for examples of the behaviors may be more helpful than dealing with broad, nonspecific descriptors such as, "always seeking attention," or "never completes work." The environmental conditions surrounding these behaviors also should be identified. Furthermore, if the teacher initiated the referral, reasons why it was made at this particular time should be elucidated.

The necessity of clarifying the problem cannot be overemphasized. In making a referral, teachers (and parents) may be responding to any number of factors in the child's behavioral pattern, including "by-products" of the actual problem (e.g., incomplete assignments, not following directions, poor achievement). Since hyperactivity may manifest itself in many ways, a behavioral assessment will help to quantify most salient aspects of the problem.

During the interview with the teacher, the school psychologist might also inquire about the child's compliance to rules, problem solving skills, attention span, activity level, peer relationships and classroom interactions, work patterns, academic performance, etc. Classroom behavioral requirements (discipline) can be noted at this time. Teachers also may be engaged in obtaining baseline data on several behaviors as appropriate as part of the assessment process.

Questionnaires or rating scales are extensions of the interview process. There are a number of them which might be considered for use in the assessment process. They can help in determining the existence of a problem, the aspects that should be priorities in the intervention, and they can assist in monitoring treatment progress and effectiveness. They also may supplement the interview by specifying target behaviors omitted in the interview.

One instrument which frequently has been used with teachers is the Conners Teachers Rating Scale (Conners, 1969). It consists of 39 items and can be used to help differentiate normal and hyperactive children. An abbreviated form (Conners, 1973) and an up-dated version which was reworded and standardized are also available (Goyette, Conners, & Ulrich, 1978). The Scale can be easily administered and used as a starting point or guide for the teacher interview. Questions deal with attention, aggression, activity level, anxiety, peer relations, etc.

There are numerous other rating scales which might be used with teachers (and parents and children). Descriptions of rating scales particularly suited to hyperactrive children are contained in Achenbach (1982), Barkley (1981), Renshaw (1974), Ross and Ross (1976), and Safer and Allen (1976). Some other commonly used ones include the Burks Behavior Rating Scales (Burks, 1977), the Devereux Child Behavior Rating Scale (Spivack & Spotts, 1966), and the Walker Problem Identification Checklist (Walker, 1976). A comprehensive, ecological, approach is provided by the Behavior Rating Profile (Brown & Hammill, 1978) for use with children 6-5 to 13-6 years. It includes student self-ratings (home, school, peer), and a sociogram, as well as teacher and parent rating scales. More elaborate discussions of interviewing techniques and behavior rating scales are contained in numerous sources (e.g., Barnett, 1982; Bergan, 1977; Ciminero, Calhoun & Adams, 1977; Cone & Hawkins, 1977; Hersen & Bellack, 1976; Kratochwill, 1982; Nay, 1979; Peterson, 1968; Walher, House, & Stembaugh, 1976).

One final point needs to be made regarding teacher interviews. Since it is necessary to determine if the child's behaviors are of recent origin or of a longer duration, consultation with previous teachers is of critical importance. Such information can provide a broader base of behavioral data upon which to make the diagnosis. Furthermore, school personnel other than the regular classroom teacher (e.g., physical education or art teachers, principal) also might be consulted regarding their perceptions of the child and to obtain a more global outlook.

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Parent Consultation/Interviews. Perhaps no one is as important a source of information as are parents, although their input has not always been considered to be reliable (e.g., Barkley, 1981; Erikson, 1978; Mash & Terdal, 1981; Safer & Allen, 1976). Parents can provide information that is usually unavailable from other sources: a detailed developmental and social history, and a long-term perspective on the child's behavior and development. They can also describe behavior management techniques and attitudes from the perspective of the home.

The school psychologist will have to be concerned with issues similar to those involved in working with teachers when s/he interviews parents (e.g., problem clarification, etc.). In addition, it is just as important to involve parents in the assessment process as it is to elicit the aid of teachers. They, too, will later be critical in the intervention phase. Furthermore, we believe that they have a right to be involved as full participants since they are ultimately responsible for the well-being of their child. Finally, it is their perception of the problem which determines to a large extent what is done with the child (Achenbach, 1978).

A detailed developmental and social history should be obtained, including relevant information about prenatal, perinatal, and postnatal development. These factors may be potential contributors to the child's problems. Early exposure to lead poisoning, for example, may have occurred or the child presently may be under the care of a physician. When medical or neurological problems are suspected as possible contributors, referral to a physician is essential. However, if there are no treatable medical problems, such a referral may not increase the rate of behavioral change (Barkley, 1981; Kenny et al., 1971; Safer & Allen, 1976). Formats for obtaining the developmental and social history are available from many sources (e.g., Peterson, 1968; Ross & Ross, 1976; Sattler, 1982; Simmons, 1974). Sattler's (1982) outline is particularly pertinent to school related problems (see especially pp. 333-334). Readers desiring further information about this area may wish to consult one of these texts.

A measure of adaptive behavior also is warranted and should be completed with the parents. It can serve as a "springboard" for identifying areas in need of further investigation and as a starting point for the interview. Most school psychologists are familiar with measures of adaptive behavior and have instruments that they prefer to use. Additional information, however, is available from many sources (e.g., Barnett, 1982; Coulter & Morrow, 1978; Sattler, 1982).

Behavior rating scales are frequently used with parents. One of the most popular when hyperactivity is suspected is the Werry-Weiss-Peters Activity Rating Scale (Werry, 1968). It was modified by Routh, Schroeder, and O'Tauma (1974) and standardized for children aged 3 through 9 years (with school items deleted) (Table 2). Means and standard deviations for the Scale are contained in Barkley (1981). However, it should be noted that the parents of the children from the Routh et al. study upon which the norms are based are not a representative, random sample: the median education for fathers was a graduate or professional degree, and for mothers, it was an undergraduate degree (Routh et al., 1974). However, the original Scale has been shown to discriminate hyperactive from non-hyperactive children (Sprague, Barnes, & Werry, 1970).

Table 2

Werry–Weiss–Peters Activity Rating Scale

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1. During meals, is the child up and down at the table?
   No Some Much NA (not applicable)
2. During meals, does the child interrupt others without regard for what they are trying to say?
   No Some Much NA
3. During meals, does the child fiddle with things?
   No Some Much NA
4. During meals, does the child wriggle?
   No Some Much NA
5. During meals, does the child talk too much?
   No Some Much NA
6. When watching television, does the child get up and down during the program?
   No Some Much NA
7. When watching television, does the child wriggle?
   No Some Much NA
8. When watching television, does the child play with objects or his or her body?
   No Some Much NA
9. When watching television, does the child talk too much?
   No Some Much NA
10. When watching television, does the child do things that interrupt others?
    No Some Much NA
11. Is the child unable to play quietly?
    No Some Much NA
12. When at play, does the child keep going from one toy to another?
    No Some Much NA
13. When at play, does the child seek the attention of an adult?
    No Some Much NA
14. When at play, does the child talk too much?
    No Some Much NA
15. When at play, does the child disrupt the play of other children?
    No Some Much NA
16. Does the child have difficulty settling down to sleep?
    No Some Much NA
17. Does the child get too little sleep?
    No Some Much NA
18. Is the child restless during sleep?
    No Some Much NA
19. Is the child restless during travel?
    No Some Much NA
20. Is the child restless during shopping (including touching everything)?
    No Some Much NA
21. Is the child restless during church or at the movies?
    No Some Much NA
22. Is the child restless while visiting relatives?
    No Some Much NA

Source: Routh, D.K., Schroeder, C.S., & O'Tauma, L.A. Development of activity level in children. Developmental Psychology, 1974, 10, 163-168. Copyright 1974 by the American Psychological Association. Adapted by permission of the author.

Note. Parents complete the scale, and 1 point is credited for every answer of "Some," 2 points for every answer of "Much." The total score is derived by summing across all answers.

Conners (1969) also constructed a 93-item rating scale for use with parents (in addition to the teacher Scale). It has been revised and shortened by Goyette et al. (1978). Another instrument, the Child Behavior Checklist (Achenbach & Edelbrock, 1982), may be used with children aged 4 to 16 years. It has a factor for hyperactivity in it, although it is not clear how well it discriminates hyperactive from non-hyperactive children.

After obtaining much of the background information through use of the procedures described, a structured, behavioral interview should be conducted. Again, antecedent stimuli and consequences should be identified as well as the reason which prompted the referral. Behaviors in a variety of settings should be discussed (home, visits to neighbors, relatives, church, etc.). Behavior management techniques need to elucidated. Related to this area, problems leading to noncomplaint behaviors should be clarified (e.g., ambiguous parental commands, inadequate consequation of child's (non)compliance by parents, excessive duration of compliance) (Barkley, 1981).

Finally, the interview should address family variables, while respecting the family's right to privacy. Excessive parental stress (e.g., marital, health, employment) or difficulties with siblings may need to be addressed in the intervention.

Behavioral Observations. Behavioral observations have been described by Atkeson and Forehand (1981) as "the most reliable and valid assessment procedure for obtaining a functional analysis of conduct disorders in children" (p. 212) as well as being the most costly. While most school psychologists realize the value of conducting behavioral observations in any assessment, this procedure is not always included. Perhaps the cost issue is why two recent surveys (Swan & MacDonald, 1978; Wade, Baker, & Hartman, 1979) found that behavioral assessors may not view direct observation as an integral part of assessment. For this reason, we wish to stress the necessity of including direct observation in the evaluation of hyperactive children.

Prior to discussing some of the issues in this procedure, there are some cautionary notes that we wish to make. A most important consideration is whether these measures provide useful data for treatment planning. Furthermore, we must remember that observations may be altered by observer error and by subject reactivity to being observed. Use of a coding system, while necessary, also may result in some information being ignored (by not being included in the system). Finally, the behavior of interest may not occur during the observational periods (especially low frequency behaviors).

There are many procedures for gathering observational data and they are too numerous to mention here. Many suggestions are contained in the reference sources for interviewing and behavior rating scales (Teacher Consultation/Interview section). Rather than discussing these approaches, we will instead present some of the most important issues in conducting observations useful in the diagnosis and treatment planning for hyperactive children.

There are several points that should be considered in using any observational code. It should be objective (two observers would agree as to classification), contain mutually exclusive categories, and provide data that can be objectively analyzed (Mash & Terdal, 1981). The behaviors included should correspond to those of potential importance to the case, although there are some global procedures that might be used.

It is usually suggested that observations take place within the child's natural surroundings. Most school psychologists normally observe children in the classroom, on the playground, in the gymnasium, etc. However, in instances in which there is a centralized diagnostic clinic away from the child's school, multiple observations may necessitate making several school visits (which should take place for the teacher consultation and examination of the child's records anyway).

At times it may be appropriate or more feasible to observe a child in a so-called "analogue situation" in order to provide certain structure such as problem solving, command-compliance, or academic task situations. These analogue situations are assumed to provide more efficient access to the specific behaviors of interest (Mash & Terdal, 1981).

It is especially important to observe a child on a number of occasions as behavior may significantly vary over time and in different locations. Related to this point, it should be noted that school psychologists can be extremely helpful to physicians (and other child care specialists) who frequently are only able to observe a child in their office. As a result of this limited contact, their views of the child can be biased and heavily dependent upon parental reports. The school psychologist can easily provide important input and a broader perspective in this regard which can assist in the diagnostic procedure. Further discussion of the necessity for collaborative efforts is contained later in the chapter.

Home observations can provide additional diagnostic information and a different perspective of the child. However, some have referred to this procedure as inefficient and expensive. Where circumstances preclude this form of assessment, consideration may be given to meeting with parents and children together at school. By this means, the school psychologist will be provided with the opportunity of observing parent-child interactions (in addition to the teacher-child and peer interactions at school). Direct behavioral observation is a widely accepted format for obtaining descriptions of these interactions (Atkeson & Forehand, 1981), and undoubtably superior to second-hand reports. One of the shortcomings of most coding systems for hyperactivity is that they neglect attention and rule-governed behavior and reciprocal social interactions (Barkley, 1981). By assessing the interpersonal interactions described above, such information is more likely to be noted. The focus of treatment can then be on (non)compliance, self-control, problem solving, and social skills.

Direct Assessment of Child. Even after obtaining descriptions of the child through teacher and parent interviews and behavioral observations, the school psychologist most likely will want to formally assess the child directly. A comprehensive psychoeducational assessment is generally required, and it may include an evaluation of the following areas: intellectual/cognitive, academic, sensory motor, language, and personal/social areas, in addition to the information obtained through the other procedures described earlier. Of course, the particular procedures will vary depending on the child's age, language skills, ability, etc.

Information gained from assessing these areas can be useful in the diagnostic phase and in treatment planning. For example, the intellectual assessment may provide information about problem solving skills and learning styles. The personal/social may clarify issues related to self-control. Since these children frequently experience academic problems, a sampling of skills for this domain is also obtained.

In interviewing the child (particularly if self-management strategies will be utilized), it is important to obtain information about the child's level of problem awareness and metacognitions; the child's attributional system; his/her objectives; and, the degree of agreement regarding problem identification between the child and significant adults. Such information can be helpful in setting treatment objectives and in determining the feasibility of various modes of intervention (Karoly, 1981). Discussions of peer interactions, other potential social skills problems, and descriptions of the parent-child relationship should be included, again being cognizant of the child's right to privacy. The level of this discussion with the child will be dependent upon the child's age and ability level.

Collaboration. As mentioned at the beginning of this section, it is crucial that diagnostic and treatment efforts involve a variety of professionals in addition to the parents. Unless they all work as "partners" within a collaborative framework, the possibilities of successful assessment and intervention are substantially decreased. The assumption is that both parents and professionals are "experts" and knowledgeable about the child. By collaboratively combining their expertise, a creative mixture of ideas can be developed. Furthermore, P.L. 94-142 implies that no one professional or discipline can any longer be solely responsible for evaluation and placement of handicapped children; a multidisciplinary approach to services is now mandatory. Even outside of the educational system, child care specialists (such as physicians and psychologists in private practice) who do not seek input and collaboration from other sources (e.g., schools) may be disregarding critical information and assistance. However, in our experience, school personnel are not contacted frequently enough for input before children are diagnosed as "hyperactive" by some practitioners.

Since the assessment will involve a number of persons, it is imperative that their results be thoroughly discussed and integrated (as much as possible) to plan the intervention. In multidisciplinary case conferences, it is not uncommon to find discrepant viewpoints and diagnostic findings. After all, each profession has a relatively idiosyncratic manner of viewing childhood disorders and each conducted his/her assessment utilizing somewhat different approaches and methodologies. Disagreements do not necessarily indicate that one finding is biased or unreliable. Rather, it may suggest that they have tapped different dimensions of the problem. In addition, the lack of cross-situationl consistencies is troublesome only to those who adhere to a unitary or trait view of children (Karoly, 1981).

One of the most important aspects of the multidisciplinary approach is that of a collaborative relationship among the members. Each person should be viewed as a contributing, equal and important participant. Hierarchical power relationships appear to restrict communication (Gutkin & Curtis, 1982) and to decrease the potential effectiveness of the conference. Furthermore, such relationships hinder the involvement of the participants and lessen the chances that interventions will be implemented (Curtis & Zins, 1981).

Once the diagnostic process is completed and treatment begun, it is important that follow-up and on-going consultation continue in order to monitor progress. A lack of such follow-up is most likely one of the major deterrents to success.

Intervention

At the beginning of the Assessment section, it was stated that the distinction between treatment and assessment is somewhat arbitrary. This fact is particularly cogent with behavioral intervention techniques.

There are a number of approaches to the treatment of hyperactive children that have been reported. More popular ones include pharmacological treatments, dietary and orthomolecular techniques, behavioral and cognitive-behavioral approaches, and environmental manipulation. Other treatments have been discussed in the literature, but they generally have not been as promising in terms of potential effectiveness (e.g., individual psychotherapy, biofeedback).

It should be kept in mind that the treatments discussed are not mutually exclusive. They frequently are used in combination with one another. In addition, they are generally not the exclusive domain of one profession and a multifaceted, multidisciplinary approach is frequently the norm in treating these children and their families. Furthermore, there is no simple formula that can be applied for selecting the treatment of choice.

Pharmacological Treatment

The use of stimulant drugs with hyperactive children has become the most common form of treatment (e.g., Achenbach, 1982; Safer & Allen, 1976) The reason for its popularity is, quite simply, its effectiveness. It is difficult to dispute the efficacy of short-term stimulant treatment in the management of hyperactive children (Gittelman, Abikoff, Pollack, Klein, Katz, & Mattes, 1980; Safer & Allen, 1976). Based upon a literature review on the effects of stimulant drugs, Whalen and Henker (1976) estimated that somewhere between 60 and 90 percent of hyperactive children improve with Ritalin (methylphenidate). Nevertheless, there continues to be serious concern about the possible deleterious effects that may result from use of the drugs.

Administration of stimulant drugs has been shown to produce a number of behavioral changes. Activity levels may be reduced (or better modulated) in some settings, motor performance better controlled, and attention spans more focused and sustained (Henker & Whalen, 1980; Ross, 1980). However, there is no evidence of an increase in learning capacity (Ross, 1980), or of an improvement in school achievement (Barkley & Cunningham, 1978; Cantwell, 1980), even though some cognitive functions (attention, memory) may be improved.

Related to the discussion of stimulant drugs, some physicians have suggested that hyperactive children be placed on the medication on a trial basis to observe its effects (Wender, 1971). If the child's level of activity decreases, s/he is then diagnosed as hyperactive. Wender makes the assumption that hyperactive children react differently than normal children to stimulant medications. Ross (1980) refers to this as a "deplorable practice" (p. 244), and Rapoport (1980) has presented data that disputes this assumption. She found that normal prepubertal boys showed enhanced learning and performance following a single dose of Dexedrine (dextroamphetamine). The growing assumption is that the stimulant drugs have similar effects on hyperactive and normal children (Henker & Whalen, 1980).

A related problem with the use of the drugs is that of predicting which children will benefit from them (Achenbach, 1982). Many clinical, environmental, familial, social, and neurological factors may be related to treatment response (Cantwell, 1977). Research has so far failed to discriminate between those who will and will not benefit.

At the present time, three stimulants comprise nearly all of the market for the pharmacological management of hyperactive behavior. These are Dexedrine (dextroamphetamine), which has been in use with hyperactive children since 1937 (although now in decreasing frequency), Ritalin (methylphenidate), used since 1956, and Cylert (pemoline), which entered the United States market in 1975.

The choice of which stimulant to use is, of course, up to the prescribing physician. Ritalin and Cylert are currently more popular than Dexedrine, although Safer and Allen (1976) state that the clinical effect of each is generally equivalent. They also suggest that a major advantage of Ritalin and Cylert is that their appetite suppresent effects average only about one-third those of Dexedrine. While all three are available in tablet form, Dexedrine also comes in a liquid, capsule, or elixir form (for young children). Cylert is the most costly of the three with Dexedrine being the least expensive (Safer & Allen, 1976).

Cylert has a longer duration of effect than Ritalin or Dexedrine tablets. However, it can take up to three or four weeks to demonstrate benefits while the other two achieve their maximum effect on the day of administration. Most children respond similarily to any one of the medications, although in about 20 percent of the cases, one drug will work while another does not (Ross & Ross, 1976; Safer & Allen, 1976).

Dose adjustments are frequently made by the physician following the initial prescription (see Table 3). Different children may react in various ways to the medications, and varying aspects of a particular child's behavior may be affected by the dosage level. Therefore, it is important that school reports regarding behavioral changes be obtained with each adjustment, rather than relying only on parental reports (Safer & Allen, 1976). Additional information about the drugs may be obtained in the Physician's Desk Reference (PDR) which most school nurses have available. Use of the Werry-Weiss-Peters Activity Rating Scale (Table 2), the Conners Teachers Rating Scale (Conners, 1969), or a similar behavior rating scale may be particularly helpful in monitoring progress and in giving feedback to the attending physician.

Table 3

Stimulant Drugs Frequently Used in the Treatment of Hyperactivity in Children

Drugs	Typical Dosages[a]	Dosage Schedule[a]	Appearance[b]
Cylert	37.5 mg	before school	orange -round (TH - monogram)
(pemolin)	75 mg	before school	tan - round (TI - monogram)
	(18.75 mg)		yellow - round (TJ - monogram)
Ritalin	10 mg	before school/noon	pale blue - round
(methylphenidate)	20 mg	before school	peach - round
	(5 mg)		pale yellow - round (CIBA - monogram)
Dexedrine	5 mg	before school/noon	orange - heart shape
(dextroamphetamine)	10 mg (2 tablets)	before school	(SKF - E19 - monogram)

[a] These may be adjusted depending upon the individual child's reaction. Numbers in parentheses are other available size tablets.

[b] Refers to tablet color, shape, and the pharmaceutical firm's trademark on tablet (in parentheses).

It is quite common for children to discontinue use of the medications on weekends, holidays, and summer vacations (at their physician's direction). These alternating schedules are instituted as a result of concerns about long-term side effects. Over time, approach can easily result in a child taking the medication for only one-half of the year. School psychologists working with these children (e.g., in assessment) should clarify whether the child is taking the medication as this factor may significantly alter the child's behavior.

Side Effects. There are a number of relatively frequent side effects which accompany the stimulants. Most of these are usually temporary and of a minor nature. They most commonly include decreased appetite, weight loss (or growth retardation), insomnia, abdominal pain, headaches, and moodiness (Achenbach, 1982; Cantwell, 1977, 1980; Ross & Ross, 1976; Safer & Allen, 1976; Schwartz & Johnson, 1981). These side effects do not occur with all children, but when they do occur, they usually last only a week or two.

Sufficient data about the long-term effects, safety, and efficacy of these drugs is currently unavailable. However, there have been reports of a temporary suppression of the predicted growth rate (weight and/or height gain) with long-term stimulant therapy (Safer & Allen, 1973, 1976; Safer, Allen, & Barr, 1975). Following cessation of the medication, however, an accelerated rate of growth was noted, which Safer and colleagues interpreted as a growth rebound (Safer, Allen, & Barr, 1975). It appears that the growth suppression, when it occurs, is only temporary.

While serious physical side effects from the use of stimulant drugs have been reported infrequently, more longitudinal research is needed, particularly regarding their effect on sleep, heart rate, behavior and learning (Safer & Allen, 1976).

Related Issues. While the use of stimulant drugs may be successful initially, long-term outcomes are not as positive (Henker & Whalen, 1980). It is likely that the observed improvement will be maintained only for as long as the child remains on the drug (Ross, 1980; Schwartz & Johnson, 1981). Behavioral deterioration or regression frequently follows immediately after the medication is stopped (Loney, 1980). The problem is a result of the fact that the children do not learn rule-governed behavior or problem solving skills from the medication. As a result, they continue to experience many of the same problems that they had prior to the administration of the medication. As Henker and Whalen (1980) have stated, "Clearly, drugs are not enough; pills do not create skills" (p. 324).

The most negative effect of the use of stimulant drugs actually does not result from the drugs per se. Rather, it lies in the fact that other treatment is frequently ignored or discontinued when stimulant therapy is begun. Parents and teachers incorrectly make the assumption that the problem has been "cured" when the hyperactive behaviors subside, and then may be less motivated to institute or continue other behavior management techniques. The long-term consequences of such an approach are obvious.

Some professionals make the assumption that hyperactivity is a neurological problem and therefore seek or implement medical treatments for it automatically. Once again, such a reflexive reaction may avoid consideration of psychological treatments.

Pertinent to this discussion is the point made by Ross (1980). He noted that behavioral changes tend to be of longer duration if the change is attributed by the person to his/her own efforts rather than solely due to an external agent (e.g., drugs). He postulated that these attributions may account for the fact that some of the positive changes brought about by the drug tend to disappear so quickly once the medication is discontinued. Ross' (1980) contention adds strong support for the use of psychological approaches in conjunction with stimulant therapy.

Finally, it should be noted that there is no evidence to indicate that drug treatment (by itself) significantly alters the long-term prognosis for hyperactive children (Cantwell, 1977), although the drugs are useful for short-term interventions. They may be particularly beneficial in highly stressful, frustrating cases or in crisis situations in which it is critical to provide some "relief" to parents and teachers while new behavior management techniques are being implemented. Additional research, however, is needed. The problems encountered with the use of stimulant medications have clearly indicated a need for supplemental intervention.

Dietary and Orthomolecular Techniques

A popular but controversial treatment approach for hyperactivity is the Feingold or Kaiser-Permanente diet. It is based on Feingold's (1975) hypothesis that hyperactive behavior in children could be caused by the artificial color and flavors and salicylates contained in many commonly eaten foods. Feingold (1976) claimed that 30-50 percent of the hyperactive/learning disabled children he worked with responded favorably to the diet. The diet allows consumption of meats, vegetables, milk, and homemade products. Fruits and vegetables such as apples, berries, peaches, tomatoes, and cucumbers, however, must not be eaten because they contain natural salicylates. In addition, all groupings of food which contain artificial color and/or artificial flavors are omitted from the child's diet (Feingold, 1975). As should be obvious, the diet is much easier to describe than it is for parents to implement. The interested reader can obtain specific information about the diet along with instructions for implementation and sample menus by reviewing Feingold (1975). Another relatively popular but different diet is contained in Smith's (1976) book, Improving Your Child's Behavior Chemistry. A chapter by George Harper in this volume also addresses dietary and nutritional concerns.

Feingold claims that when the child responds favorably to the diet, the first area in which improvement is seen is in behavior. The child usually becomes less aggressive, less impulsive, and his/her ability to concentrate improves. Improvement in fine and gross motor coordination, and finally, cognition and perception, should follow, particularly in younger children (Feingold, 1975, 1976). Many anecdotal reports from parents have supported this approach.

Controlled investigations of the Feingold diet are much less promising and have yet to provide substantial support for the effectiveness of the diet for a significant number of hyperactive children (Conners, 1980; Conners, Goyette, Southwick, Lees, & Andrulonis, 1976; Harley, & Matthews, 1980; Harley, Matthews, & Eichman, 1978; Harley, Ray, Tomasi, Eichman, Matthews, Chun, Cleeland, & Traisman, 1978; Spring & Sandoval, 1976; Trites, Tryphonas, & Ferguson, 1980). These studies have generally found only a small number of hyperactive children who may be behaviorally sensitive to food additives and who consequently show improvement from such dietary manipulation. Preschool children generally respond more positively than the older children (Harley & Matthews, 1980; Henker & Whalen, 1980). Although the overall efficacy of the Feingold diet remains questionable, it may have positive secondary effects that have as yet remained virtually unexplored. For example, Henker and Whalen (1980) pointed out that families often undergo radical changes in lifestyle to ensure that the child faithfully follows the diet. Any resulting changes in the constellation of the family structure is bound to have positive effects on the child's behavior (i.e., parents' tracking behavior of child may improve, child may begin to receive more positive attention). Harley and Matthews (1980) add that maintenance of the diet may positively alter family dynamics by encouraging parents and children to spend more time together, sharing in food preparation and increasing exchanges of mutual support.

Some medical research has attempted to link hyperactivity and other behavioral disorders to biochemical imbalances or to a deficiency of essential nutrients in the brain that are normally present in the human body (Pauling, 1968; Cott, 1972). From this perspective, treatment of hyperactivity would focus on the use of orthomolecular techniques which are comprised of giving the child large doses of vitamins to correct this imbalance or deficiency. Palmer, Rapoport, and Quinn (1975) concluded that although there have been some claims of positive results with the use of megavitamin therapy, no controlled double blind studies had been conducted to objectively assess its effect. Therefore, the efficacy of this form of treatment for hyperactivity has yet to be proven.

In summary, while the merits of orthomolecular tecnhniques need further documentation, it appears that the dietary approach either has a very small effect on hyperactive children in general or no effect in most cases, along with a possibly important effect in a few (Achenbach, 1982). Even if the diet has no effect on the child's hyperactive behaviors, there seems to be some benefit in limiting intake of "junk foods", soft drinks, sugars, etc., and to increasing family interactions.

Cognitive-Behavioral Approaches

Recently, a number of therapeutic techniques have been developed which recognize the interplay of both the cognitive and the behavioral determinants of the child's functioning. Supporters of this approach generally identify attentional deficits and impulsivity as key features for intervention with hyperactive children (Douglas, 1972; Keogh & Barkett, 1980) as they believe that these factors can disrupt a child's behavior. Interventions tend to focus on teaching the child to develop internal control and a more effective problem solving style that will ultimately lead to lasting cognitive and behavioral change (Keough & Barkett, 1980). These approaches include self-monitoring, self-reinforcement, training in verbally mediated self-control, and the modeling of effective cognitive and/or interpersonal problem solving. Several representative approaches and studies utilizing these techniques will be presented in this section.

Meichenbaum and Goodman (1971) developed a training program which has been used with hyperactive, impulsive children. It has its roots in the work of

Luria (1961) and Vygotsky (1962) regarding the role which verbal mediation plays in the self-regulation of behavior. Meichenbaum and Goodman hypothesized that hyperactive, impulsive children failed to use their language to control their nonverbal behavior. Self-instructional training was designed to "correct" this mediational deficit by teaching cognitive strategies which the children could use to help them think prior to acting. Specifically, children were taught to (a) define the task or problem, (b) focus their attention, (c) spontaneously produce verbal mediators and use them to guide their performance on a task, (d) evaluate their progress, and, (e) learn strategies to cope with frustration and failure and utilize self-reinforcement (Meichenbaum, 1977; Meichenbaum & Goodman, 1971).

Palkes, Stewart, and Kahana (1968) trained hyperactive boys to use verbal mediation to improve their performance on a task. The children were instructed to "stop, look, and think," with training aids (such as visual reminder cards with verbal self-commands printed on them) used to cue the child that it was time to begin using self-statements. Readers who use a self-instructional approach in interventions can easily create their own cue cards to fit the specific tasks they are working on with a child.

Since children do not always find learning verbal self-instructions to be an intrinsically interesting task, some investigators have combined these procedures with operant techniques. For example, in a study by Bornstein and Quevillon (1976), they reinforced children with material rewards upon correct performance of a task. Once the children could perform successfully, material rewards were faded and praise and self-reinforcement were used. Later in the training sequence, the children were required to verbalize their own instructions. The results showed significant changes in behavior which generalized to the classroom and were still evident 90 days later. The study suggests that the efficacy of cognitive strategies can be increased if supplemented with operant techniques.

Douglas (1980) also stated that the implementation of reinforcement contingencies is particularly useful in the early stages of training and when the disciplinary patterns of parents and/or teachers are particularly inconsistent and unpredictable. The contingencies can help demonstrate to the child that his/her actions will have predictable consequences. In addition, she points out that it makes adults become more aware of their own interactions with the child and trains them to be more consistent.

Self-regulatory techniques consist of several components such as modeling, self-instructions, self-reinforcement, and self-monitoring. Little research has been conducted to date to determine which components or combination of components is most critical to the success of the intervention (Ross, 1981; Urbain & Kendall, 1980), although a recent study (Varni & Henker, 1979) produced some interesting results in relation to this question. The researchers initiated a cognitive-behavioral intervention which included the sequential use of self-instructional techniques, self-monitoring, and self-reinforcement. They found that a combination of the three approaches decreased disruptive behavior with hyperactive boys and improved academic performance. The individual components of the approach were not as successful in creating behavioral change. The study suggests the importance of the self-monitoring and self-reinforcement components of a cognitive-behavioral intervention.

Douglas (1980) believes that the faulty learning which guides the hyperactive child's perceptions, cognitions, and behavior permeates all aspects of his/her life. Therefore, training must extend beyond the laboratory and into the schools and home. Her training approach emphasizes a combination of self-verbalization techniques, self-monitoring, modeling, and self-reinforcement. It contains three levels of intervention, with the first comprised of helping the child understand the nature of his/her deficits and how to overcome them. This implies convincing the child that all of his/her difficulties result from a failure to think before acting and then explaining the cognitive training approach.

The second level of the intervention focuses on strengthening the child's motivation and ability to deal with the problem solving process. The child is taught the essential questions that must be asked when approaching any task (e.g., What am I supposed to do? What possible solutions can I think of?). Self-monitoring for correctness of work is also stressed. Finally, success experiences and reinforcers are provided to help bolster the child's self-confidence and motivation.

The major goal of level three is to teach children specific problem solving strategies to help improve school performance. They are taught attention focusing techniques such as exhaustive scanning, focusing strategies, and careful listening. Control of the child's arousal level is gained by teaching them calming verbal self-commands or inducing short periodic breaks in the work. In addition, inhibitory control techniques, the development of organizational skills, and strategies for specific academic activities are emphasized in the program. The results of a study conducted by Douglas and her associates (Douglas, Parry, Marton, & Garson, 1976) suggested that self-management training improved children's problem solving strategies and may have generalized to academic subjects.

Cognitive-behavioral interventions also have been used to help children achieve social competence. The emphasis of these appraoches is to improve the child's interpersonal problem solving, thereby enhancing his/her social and emotional adjustment. Such interventions can be extremely valuable for use with hyperactive children considering the fact that many of them experience difficulties with peer relationships and have been found to be low in self-esteem (Safer & Allen, 1976). One of the more popular programs aimed at training interpersonal problem solving skills in children hypothesizes that children with behavior problems often do not consider the consequences of their actions, have deficits in means-ends thinking, and do not generate alternative solutions to problems (Spivack, Platt, & Shure, 1976; Spivack & Shure, 1974). Their training program for preschool children (Spivack & Shure, 1974) consists of structured daily activities and games to be conducted by the preschool teacher. The children are first taught prerequisite skills such as necessary linguistic concepts and the ability to identify basic emotions. A number of interpersonal problem situations are then presented, and through these, the children are taught to seek many solutions to a problem, to evaluate solutions according to their potential consequences, and to plan a series of actions to attain their goals. The techniques are applied to real-life problem situations that arise whenever possible.

Another commercially available program which could be adapted for use with hyperactive children is the THINK ALOUD program which includes a combination of general cognitive and interpersonal tasks (Camp & Bash, 1981). Children are taught to answer four basic questions upon approaching any problem situation: What is my problem? What is my plan? Am I using my plan? How did I do? The training script for social problem solving is similar to that of Spivack and Shure (1974) in that it also focuses on identifying emotions, considering the consequences of actions, and generating a number of alternatives in any given situation. They also attempt to increase generalization to real-life situations by using problems that commonly occur in classrooms and by encouraging children to think of various ways to use the thinking out loud to help them in their school work and in peer relationships. Results of an initial study using the THINK ALOUD program with aggressive boys indicated that after completing the program, these boys showed an increase in prosocial behavior (Camp, Blom, Hebert, & van Doorninck, 1977).

The literature on the training of cognitive and social problem solving skills is generally encouraging (Urbain & Kendall, 1980). Considering the hyperactive child's deficiency in engaging in rule governed behavior (Barkley, 1981) and his/her ineffectual problem solving skills, it appears that self-instructionaltraining should be a vital component to the child's treatment package. However, it is recommended that it be used in conjunction with other techniques as this type of intervention still only affects a narrow range of the child's needs. Furthermore, Barkley (1981) suggests that such training should be most successful after the child has learned to comply to the rules set down by others. A substantial amount of future research is needed in this area for we still know very little about the internal events that take place during the process of problem solving (Urbain & Kendall, 1980). Finally, there remains the concern of generalizability to real-life situations. While many studies have demonstrated that children do improve on specific tasks after undergoing self-instructional training, there has been only limited generalization to the classroom or home setting. More intensive procedures are needed to achieve generalization across settings. Meichenbaum (1982) suggested a number of steps to help achieve the needed transfer of skills. Included in his suggestions were performing a thorough task analysis of the target behavior, choosing tasks which approximate the criterion as much as possible, and collaborating with the child and encouraging him/her to become actively involved in creating his/her own self-instructions.

Operant Techniques

In recent years, behavior management techniques have become increasingly popular in the treatment of hyperactivity, and they are now one of the most frequently used nonmedical treatment approaches (Brundage-Aguar, Forehand, & Ciminero, 1976). The theory underlying this approach focuses on the relationship between the child's behavior and his/her environment. It assumes that through appropriate manipulation of the environment (i.e., rearrangement of rewards and punishment), one can effect behavioral change (Tharp & Wetzel, 1969).

When behavior therapy has been used with hyperactive children, it has included a number of different operant programs, including positive reinforcement, time out, punishment, reinforcement of competing responses, token programs, and behavioral contracts (Mash & Dalby, 1979). Many of the interventions use various combinations of the above mentioned procedures. Several comprehensive reviews of behavioral treatments which can be used with hyperactive children are available (e.g., Lahey, 1979; Mash & Dalby, 1979; O'Leary & O'Leary, 1972; Ross & Ross, 1976). In this section, several representative studies will be summarized in order to present a more in-depth description of the various inteventions which might be utilized.

Many studies focus on reinforcing an alternative behavior which would be incompatible with hyperactivity. In most classroom studies, the alternative which was reinforced has been attending behavior (Brundage-Aguar et al., 1976). The child usually is required to attend to the teacher or to an assignment for a specified period of time in order to receive a reinforcer. Contingent teacher attention has been found to be effective in increasing the attending behavior of pupils (Broden, Bruce, Mitchell, Carter, & Hall, 1970).

An inherent problem, however, in measuring change in behavioral characteristics (e.g., in-seat behavior, attending behavior) is that it does not ensure that the child is actually listening, learning, or improving his/her academic performance. Therefore, other studies have focused on correct work completion as the incompatible behavior to be reinforced. Results of a study by Ayllon and Roberts (1974) offer support for this approach which assumes that the disruptive, hyperactive behaviors will eventually cease as the child begins to correctly complete his/her assignments. Mash and Dalby (1979) conclude that behavioral interventions clearly need to focus more on increasing academic performance in the future rather than focusing exclusively on the reduction of hyperactive behaviors.

In a related study, Ayllon, Layman, and Kandel (1975) compared the effectiveness of stimulant drug therapy to the use of behavioral technique which reinforced academic responses. During the behavioral phases of the experiment, they attempted to reduce hyperactive behaviors by reinforcing correct responses on math and reading tasks. The children were given checks for each correct response and these checks subsequently could be exchanged for reinforcers such as candy, free time, school supplies, or lunch in the teachers' room. Hyperactive behaviors were recorded daily using a time sampling procedure. The investigators found that reinforcement of academic performance was successful in reducing hyperactivity, and that this form of intervention was clearly more effective than stimulant drug therapy (in isolation) in improving academic progress.

In another study, O'Leary, Rosenbaum, and Price (1976) focused on reinforcing both academic responses and prosocial behaviors, with parents and teachers both actively involved in the process. The program had five components:

a) Specification of the child's classroom goals by the teacher;

b) praising the child for efforts to achieve the agreed upon goals;

c) an end of the day evaluation of the child's behavior to determine if s/he met the specified goals;

d) sending the parents a report card each day of the child's daily progress; and

e) having the parents reward the child for progress toward the goal.

Therapists worked with parents to select appropriate rewards and contacted them weekly to monitor the program. They similarly consulted with teachers to select the academic and prosocial goals which included completing math assignments, helping a neighbor with a project, not fighting, and bringing in homework. The results of the study were positive in that children in the treatment group showed improved ratings on the Conners Teachers Rating Scale.

One concern in using such reinforcement programs in a classroom setting is the effect the intervention has on other children. Peers can be helpful or they can provide obstacles to the success of these programs. Rosenbaum, O'Leary, and Jacob (1975) attempted to determine if a group contingency would provide a positive supplement to an individual reward program. In their study, half of the identified hyperactive children were placed in an individual reinforcement condition with the teacher making a private contract with the child. The other half were placed under a group contingency plan in which the teacher explained the program to the entire class. In this case, the hyperactive child's behavior was evaluated each hour and reinforced when appropriate with a reward card. At the end of the day, the entire class received a piece of candy for every card the target child earned. The children were told how they could help the child earn more cards (i.e., by ignoring inappropriate behavior, praising quiet work). Results of the study showed that the group contingency was as effective as individual contingencies in improving the hyperactive behaviors. When the children's teachers were interviewed, they showed a more positive reaction to the group contingency program.

Although the focus of the studies cited in this section predominately have been the classroom, these same techniques are equally applicable to the home. Parents can be trained in behavior management approaches to allow them to effectively utilize operant techniques in dealing with their children. Two excellent resources which school psychologists may wish to use in working with parents in this regard are Becker's (1971) book, Parents Are Teachers and Patterson's (1975) text, Families.

The training of parents in behavior management techniques assumes even more importance when one considers the problem of generalizability across situations. Positive behaviors shaped from a behavior management program at school often will not carry over to the home if there are different reinforcement contingencies operating. It is critical that there be some continuity in the approaches.

Based upon the available research, we are led to the conclusion that operant techniques are indeed viable methods of treatment for hyperactive behaviors. This is particularly the case when the focus is on altering behaviors such as academic performance in school or social competence at home. In order to modify such behaviors, it is important to decide on the final goal of the intervention and to then focus on achieving it. Another noteworthy point is that operant techniques can be successfully used with an individual as well as with groups of children.

Finally, with the use of behavioral approaches, a specific intervention is often unnecessary for every problem behavior. Once a consistent pattern of positive control is established by the parent and/or teacher, some generalization may occur across behaviors or situations.

Environmental Manipulation

The overarousal and underarousal theories of hyperactivity have resulted in various interventions which focus on manipulation of the child's physical environment. The belief is that the classroom may be contributing to the child's disruptive, hyperactive behavior because of the way it is physically organized. Adherents of the underarousal theory attempt to create a more stimulating environment in the regular classroom. This is generally accomplished by increasing both visual and auditory stimulation. For example, Scott (1970) introduced background music in the classroom and found that it decreased the activity level of hyperactive children and increased their work output.

An example of the opposite approach can be seen in the minimal stimulation programs originally designed by Strauss and Lehtinen (1947). These were based on the view that the hyperactive child is brain-injured and that his/her distractibility is caused by an oversensitivity to environmental stimulation. Therefore, all visual distractors such as pictures, bulletin boards, and toys were removed, the room was painted in a neutral color, and noise was kept to a minimum. In addition, teachers were required to dress plainly and children's desks were often turned to face the wall in order to reduce any social stimulation. The class size was kept small so that the children received a great deal of individual attention.

The validity of such approaches has been questioned (Douglas, 1972). However, some of the concepts of the minimal stimulation programs are still implemented in classrooms today. For example, study carrels are often used for children who are hyperactive or distractible, and psychologists frequently recommend that distractors at home or in the classroom be limited. The program's use of structure, order, and predictability may still be helpful with hyperactive children. Most importantly, Ross and Ross (1976) point out that the true value of these programs was their emphasis on adapting the classroom to the needs of the child and the idea that the school could be changed to help the child (rather than insisting that the child adapt to the school).

A Multifaceted Approach

At this point it must be evident to the reader that *the* approach to the treatment of hyperactive behavior does not exist. However, it may not be so much a question of which treatment is best, but rather whether some children are helped better by one approach, others by another, and a third group by some combination of interventions (Ross, 1980).

At the end of the Assessment section, suggestions about the use of a collaborative approach were made. We again want to stress the importance of collaboration between professionals and parents, and between professions. All need to be actively involved in the intervention effort (as appropriate) in order to increase the probability of long-term success and life-long adjustment.

The following points are presented as a means of outlining a multifaceted approach to treatment. These statements represent a summary of ideas to be considered in a comprehensive intervention, and we suggest that they be considered in the treatment of hyperactive behavior.

(a) Operant and cognitive-behavioral approaches have much empirical support for their use. Numerous studies have indicated their value with these children and sometimes their superiority to other treatments. Such approaches might be attempted with almost all cases of hyperactive behavior. Both parents and teachers can be trained to effectively intervene with these children, especially when given professional assistance and support. Children can successfully be taught self-management techniques. With these approaches, it is crucial that there be collaborative efforts between the home and school in order to provide consistent reinforcement contingencies.

(b) Since many of these youngsters have educational needs, remedial assistance should be given as necessary. Too often, treatment is focused on numerous other behaviors to the exclusion of academic support.

(c) In general, it would appear that the implementation of dietary procedures (with appropriate medical supervision) is worthwhile for most of these children. Even if the diet per se is ineffective in treating the disorder, it may lead to better nutrition and increased family interactions.

(d) Pharmacological treatments should be utilized only in combination with other treatments in almost all cases. They undoubtably are effective on a short-term basis, but there are serious concerns which have been raised about their long-term effects. Intervention in "crisis situations" may be an example of effective usage.

(e) Follow-up through collaborative consultation is essential for long-term success. Problems likely will continue to occur and reoccur, and it is imperative that parents, teachers, and children have access to continued assistance.

Additional Resources

Throughout this chapter, we have provided numerous suggestions for obtaining additional information about specific topics (e.g., behavior rating scales). The following are major references which contain more detailed information about hyperactivity and/or treatment which interested readers may wish to examine. The extensive list of references at the end of chapter might also be consulted.

Books

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Journals (which frequently contain articles dealing with hyperactivity)

American Journal of Orthopsychiatry
Exceptional Children
Journal of Abnormal Child Psychology
Journal of Applied Behavior Analysis

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Substance Abuse

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Abstract: This chapter considers classification of substances, reviews definition and background information related to substance abuse, discusses the relationship of personality and behavior, reviews behavioral signs of substance abusers, discusses treatment and prevention.

CHAPTER OUTLINE

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  - Opiates
  - Cannobinols
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  - Over-the-Counter Drugs (OTC) and Look-a-Likes
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As we reviewed the literature available on drug and alcohol abuse, it quickly became apparent that there was far too much research and knowledge for the space allotted, and it would be necessary for us to select the most relevant material and even condense that. After considerable discussion, we decided that we would organize our chapter as follows: a brief description of the drugs used and their effects, some definitions of abuse with a more intensive review of the effects of marijauna and alcohol (as those are most frequently used by teenagers), diagnosis and behaviors of drug users, a section on the current treatment techniques used for drug abuse and their effectiveness, a description of some of the prevention techniques being used, a summary and overview of our perception of the current status of drug and alcohol abuse, and lastly a selected bibliography that hopefully will be of benefit to school psychologists.

There is no doubt that substance abuse is a most important problem for adolescents in our society today. There are three aspects of the problem that have such debilitating effects on adolescents. Certainly one effect is that their health is impaired, both short term and long range from the use of alcohol and other drugs. Secondly, adolescents who use drugs and alcohol are not functioning at optimum capacity in their everyday life and, consequently, do not learn what is expected from school nor do they learn other social skills necessary for day to day living. Lastly is the relationship of drugs to death and injury. In the past 20 years, the death rate has declined for every age group in the United States except one group, the 15 to 24 year old group. The three most frequent causes of death are accidents, suicides, and homicides, in that order. Drugs are implicated in a majority of those cases.

Substance Classification

Substances of abuse may be classified along a variety of lines. The school psychologist may benefit most from a classification scheme that provides a breakdown into classes according to the most prominent central nervous system (CNS) effects. Table 1 provides such a breakdown.

Depressants

The depressants have the primary effect of a reversible depression on the activity of all excitable tissue, particularly those in the CNS. The greatest effects are on the nerve synapse. The observed effects include reduction in activity from sleepiness through levels of anesthesia. Death from respiratory and cardiac depression can result (Schuckit, 1979). Typical examples of the depressants are barbiturates (Nembutal, Seconal, Luminal); hypnotics or barbiturate-like drugs (Quallude, Placidyl, Doriden); antianxiety drugs (Librium, Valium, Equanil, Miltown); and the most common CNS depressant, alcohol. It is not unusual for a person to mix one of the other depressants

Table 1
A Drug Classification Scheme

CLASS	EXAMPLE
Depressants	Alcohol, Tanquilizers, Hypnotics
Stimulants	Amphetamines, Methylphenidate, Cocaine
Opiates	Heroin, Morphine, Codeine, Methadone, Propoxyphene
Cannabinols	Marijuana, Hashish
Hallucinogens	LSD, Mescaline, Pskocybin
Inhalants	Glue, Aerosol Sprays, Paint Thinner, Amyl Nitrate
Over-the-Counter Drugs and Look-a-Likes	Contain: Atropine, Scorpolamine, Antihistamines, Caffeine
Other	Phencyclidine (PCP)

with alcohol and the combined effect can result in death due to respiratory stoppage. The depressants are almost always ingested orally.

Stimulants

The stimulants effect the CNS by stimulating it at many levels. They tend to cause euphoria, decrease fatigue, decrease appetite, increase energy and sexual feelings, and may act paradoxically to decrease the activity level and distractibility of hyperactive children. These effects make them attractive to people who must work or study for long hours or who wish to lose weight rapidly. It is thought that these drugs work, in part, by causing the release of neurotransmitters such as norepinephrine. Physically, restlessness, hand tremor, and rapid heart rate may be observed. Examples of the stimulants are amphetamine (Benzedrine); caffeine; cocaine; dextroamphetamine (Dexedrine); Methylphenidate (Ritalin); and phenmetrazine (Preludin). These substances are ingested in one of three ways: orally, nasally, or injected intravenously. Many abusers begin use of the drug orally and in the search for a quicker high, move on to inhalation or injection. Because the immediate effects are so pleasurable, they are frequently abused by young people. In fact, it is said that were it not for the extremely high cost, cocaine would be the drug of choice for many adolescents.

Opiates

Opiates are often discussed in conjunction with other pain killers drugs or analgesics. They all produce analgesia, a drowsy state and mood changes. At higher doses, mental functioning is clouded. These effects are the result of depression on CNS and cardiac activity (Schuckit, 1979).

The opiates and analgesics commonly abused include: opium, heroin, morphine, codeine, and the synthetic and semi-synthetic drugs, hydromorphine (Dilaudid); oxycodone (Percodan); methadone; meperidine (Demerol); and pentazocine (Talwin). These drugs are extremely addicting with physical dependence developing after short-term use. They can be taken orally, as with the synthetic opiates; via inhalation, a frequent route for first time heroin users; smoked, particularly opium; and intravenously. Intravenous use presents the most serious complications. Frequently, hepatitis contracted from dirty needles or a collapsed vein from repeated puncturing are seen. Withdrawal from heroin addiction has been described as less life threatening than withdrawal from alcohol or babiturates. Opiate withdrawal symptoms include muscle spasms and abdominal pain. Such a conglomeration explains why going "cold turkey" has been called a three to six day bout with the flu.

Cannabinols

As discussed elsewhere, marijuana is second only to alcohol as a drug of abuse for young people. The active ingredient, delta-9-tetrahydrocannabinol (THC), is most commonly obtained from marijuana, hashish, and to a lesser degree, hash oil. Pure THC is a compound whose chemical half-life is so short that it is never found "on the street". Most often what is sold as THC is, in reality, PCP or LSD. THC is often classified as a hallucinogen, however, at the dosages normally taken, the primary effects are euphoria and a change in the level of consciousness that does not produce hallucination. The greatest systemic accompanying the euphoria are relaxation or drowsiness, loss of a sense of time, hunger, and decreased social interaction. Physiologically, the user may experience slight tremor, decreased muscle strength and balance, lessened motor coordination, dry mouth, and bloodshot eyes. Epileptics may experience seizures while under the influence of THC (Feeney, 1977). The increased heart rate can make use of the drug dangerous for individuals with pre-existing cardiac disease.

Hallucinogens

The hallucinogens produce abnormal sensory input of a primarily visual nature. While the exact mechanism by which they act is unknown, much research has centered on their similarities to neuro-transmitters. The term psychotomimetics, implying the possible relationship between schizophrenia and hallucinogen psychoses, has been used to describe their action. Increased awareness of sensory input and a subjective feeling of enhanced mental activity frequently result from hallucinogen ingestion. In addition, altered body images, the inward turning of thoughts and decreased ability to differentiate self from surroundings are common effects. The chemical structure of these drugs resembles amphetamine. LSD (Lysergic Acid Diethylamide) is a synthetic, as are STP (2.5-dimethoxy-4-methyl-amphatamine), DMT (Dimethyltryptamine), and DET (Diethyltryptamine). Mescaline, found in the dried buttons of the Peyote cactus, and Psilocybin, obtained from mushrooms, are naturally occuring hallucinogens. In addition, nutmeg, morning glory seeds, and catnip are less potent hallucinogens found in nature.

Hallucinogens differ from the other drugs previously described in that what is "advertised" to the buyer does not always correspond with a chemical analysis. Often, mescaline or peyote sold on the street contains either no drug, PCP, or LSD. Frequently, these drugs are altered with amphetamines (Schuckit, 1979).

Inhalants

Most of the inhalants produce a generalized CNS depression. The major solvents, glues, and aerosols are all inexpensive, legal, and readily available in most kitchen closets or home workshops. All induce brief euphoria rapidly. Headaches are a common after effect. The high usually includes decreased inhibitions, illusions, drowsiness, and occasional amnesia during the experience. Common substances abused include: glues (toluene, naptha, chloroform); cleaning solutions (carbon tetrachloride, trichloroethylene); nail polish remover (acetone); lighter fluid (naptha, aliphatic hydrocarbons); paints and paint thinners (butylacetate, methanol, ethanol); aerosols (flourinated hydrocarbons, nitrous oxide); and petroleum products (gasoline, benzene, petroleum ether). These substances are metabolized in the liver and kidneys and can produce hepatitis or kidney failure with chronis use. In addition, abnormal heart rhythms, muscle and joint ache, double vision, ringing ears, and muscle weakness due to muscle destruction can occur. In other words, most body systems can be affected and death can occur (Schuckit, 1979). Amyl or butyl nitrate are included here because their route of ingestion, inhalation, is the same as the solvents. These drugs are sold in "adult bookstores" under the trade names of Rush, Kick, Locker Room Aroma, etc. They are typically used medically for the treatment of angina because they are vaso-dilators. The drugs can cause dizziness, nausea, and faintness due to a drop in blood pressure.

Over-the-Counter (OTC) and Look-a-Likes

A great variety of drugs sold without prescriptions are available in most drug stores, convenience stores, and grocery markets. Most people are familiar with sleeping aids such as Sleep-Eze or Sominex, drugs marketed to help people stay awake like No-Doz, or diet preparations such as Dietac. While the majority of substances in this category are of questionable medical value, they are capable of producing physical problems when taken excessively or in combination with alcohol (Shuckit, 1979). Similar to the OTCs in their non-controlled nature, are drugs referred to as look-a-like drugs. These drugs are manufactured to look like prescription medication. Frequently, they are stamped with a manufactureres trademark that closely resembles the markings used by the manufacturer of the legitimate drug. For instance, the Lemmon Company, which produces methaqualone under the trade name Quaalude, stamps its pills "Lemmon 714". The look-a-like, currently marketed through mail order houses advertising a publications such as "High Times" is stamped "Lemon 714". The look-a-like contains an antihistamine which can produce drowsiness but not the same effects as the true hypnotic. The greatest number of look-a-likes are produced to resemble amphetamines and are sold as diet aids. They typically contain 100 milligrams of caffeine, the equivalent of one cup of coffee; phenyl propanolamine, a mild stimulant used in OTC diet pills; ephedrine sulfate and pseudo ephedrine, both mild stimulants found in asthma and cold remedies. Manufactured in a variety of capsule and tablet forms designed to imitate popular amphetamines, these pills wholesale for $20 to $50 per 1000 and are retailed in many street settings, including schools, for prices ranging from $10 to $5 per pill. The profit incentive is obvious. While these drugs are legal and probably no more harmful than No-Doz, there is potential danger involved. There is an indirect overdose hazard. Students who use look-a-likes may be unfamiliar with the prescription drug they think they are taking. Several may be ingested at one time and some stimulation achieved. However, it is possible for a legitimate pill to get mixed in with the look-a-likes or for a child to take several real amphetamines. The result in either case could be an overdose. Many states have outlawed the sale or distribution of look-a-like drugs.

Phencyclidine (PCP)

Phencyclidine (PCP), sometimes known by one of its street name "Angel Dust" was originally developed for human use as an anesthetic. However, problems developed because of the undesirable side effects associated with it, including delirium and postoperative agitation (Cohen, 1981). Since the mid 1960s, it has been authorized only for veterinarian anesthesia. It is easily and inexpensively produced by amateur chemists and, therefore, is readily available. Physiologically, its effects are sympathomimetic and include increased heart rate, blood pressure, respiratory rate, and deep reflexes. Sweating, drooling, flushing, and pupillary constriction are cholinergic effects associated with PCP. Dizziness, uncoordination, slurred speech and nystagmus may also occur (Shuckit, 1979). The drug effects brain centers, possibly by producing a defect in the integration of sensory input. Psychologically, the effects have been compared to prolonged sensory deprivation (Cohen, 1981). Others think that PCP creates an imbalance between catecholminergic and cholinergic chemicals. Large doses can cause coma or major convulsions. Violent behavior that can be uncontrollable has been reported, raising the question as to why this drug has been nick-named "peace pill". PCP is usually ingested orally, inhaled, or smoked. Frequently, it is sprayed in liquid form on parsley flakes or marijuana. At high dosages (10 mg. or more) states resembling acute schizophrenic syndromes have been observed. These states have lasted for a day or months and include stuporous catatonia, excited catatonia, and paranoid schizophrenia. Equally disturbing is evidence that flashbacks can occur with PCP even more frequently than with LSD.

Definition, Background and History

Ten to 12 years ago, illicit drug use was confined primarily to young adults who consumed very week marijuana, infrequently, in small amounts. Professionals tended to view this phenomenon as one of social protest rather than for the health issues involved (Richmond, 1980). Indeed, little good information was available at that time. As with most areas of new research, reliable data accrues slowly. In 1970, no one was sure if smoking a joint of marijuana was less harmful than drinking a martini. School psychologists were rarely presented with the problem of substance abuse except in the roughest inner city neighborhoods.

Today, the situation is greatly changed on many counts. For one, the body of reliable information on the health and pharmacological effects of illicit drugs, particularly marijuana, is considerable. Secondly, adolescent substance use has grown to the point that about one in 14 high school seniors smokes marijuana daily (Johnson, Bachman, & O'Malley, 1982). In addition, the age of first use has consistently dropped. In 1980, 13% of the high school seniors reporting stated that they began marijuana use in the 8th grade. Correspondingly, in 1975, only 8% reported using marijuana by the 8th grade. Even the conservative state of Iowa reports over 20% of the population under 21 has been admitted for treatment of marijuana use in 1979 (Iowa Comprehension State Plan 1981-82). It appears today that the question is not whether the young person will be exposed to drugs, but when he will be exposed. For example, the graduating class of 1981 found 66% of its members admitting to the use of at least some illicit drug, a conservative measure.

In order to illustrate the problem regarding reliable information about drugs and drug effects, let us examine one drug, marijuana, closely. As Turner (1981) has pointed out, research on marijuana can be controversial at many different levels. For instance, there are many different spellings for the word. The National Institute on Drug Abuse spells it "marijuana" while the Drug Enforcement Administration uses "marihuana". This has led many professionals to joke "How can the government be trusted to analyze complicated research data when it cannot even agree on how to spell a simple word?"

Briefly, marijuana is a plant composed of 421 known chemicals. Sixty-one of these are cannabinoids, the most potent of which is delta-nine-tetrahydrocannabinol (THC), often referred to as the "active ingredient" in pot. Burning these 421 chemicals can produce up to 2,000 new chemicals and classes of chemicals. The number of chemicals produced is dependent on such variables as the type of cigarette paper used, the pH of the plant material, and the percentage of moisture in the marijuana itself. While the total spectrum of substances produced is not clear yet, it is certain that benzo(a)pyrine is produced. Benzo(a)pyrine is a known cancer causing chemical. It is 70% more abundant in marijuana smoke than in the smoke of high tar tobaccos.

Another fact recently discovered about marijuana is the way it is retained in the body. While the effects of the marijuana high are short-lived, the metabolic products including delta-nine THC have an average half-life of about 72 hours in a normal human body. The cannabinoids are lipid soluble, and are, therefore, stored in every major organ of the body, and can produce effects at a cellular level. In fact, it takes the body about 21 days to rid itself of all the cannabinoids from one marijuana cigarette. Obviously, a regular smoker has cannabinoids built up in the tissues for an extended period of time.

Because the research literature on marijuana is vast, with over 7,500 citations on cannabis and cannabinoids, it is difficult, if not overwhelming, to digest all of it. For instance, over 100 publications focus solely on the effect of marijuana on the lungs. Tashkin and Cohen (1981) have reviewed the literature on marijuana and the lungs. They offer three conclusions:

1. The chronic use of tobacco often associated with pulmonary disease and pulmonary carcinoma is similar to the effects of chronic use of marijuana. Furthermore, when the smoke of both is inhaled together the expected effects will be more intense than either separately.

2. The noxious effects of smoking marijuana have been demonstrated in cellular, animal, and human studies. While human lung cancer due to marijuana has yet to be seen, the latent period for its development extends over decades.

3. It appears that marijuana may be more pathogenic than tobacco. Further study is required in this area, but reason to suspect it include a probably greater irritant effect, greater degree of upper airway involvement, and different smoking techniques which involve deeper and longer puffs.

In regard to the use of alcohol over the past 25 years, there have been great changes in teenage drinking patterns. These changes have been so significant that the Federal government allocated 12.5 million dollars for the education, prevention, treatment, and research of youthful drinking in fiscal 1980. Phillipson (1981) cites three distinct causes for the increased prevalence of teenage drinking problems:

1. Relatively cheaper prices for alcohol as compared to 25 years ago;

2. Lowered drinking ages;

3. Marketing of alcoholic products aimed at youth populations.

Young people tend to drink on a less consistent basis than older people. However, when young people do drink, they consume larger quantities, with the primary objective being intoxication.

In a survey of youthful drinking patterns conducted in 1974 and again in 1978, Rachal, Guess, Hubbard and Maisato (1982) defined three specific types of alcohol use by adolescents. Abstainers where categorized as young people who report never having had more than one to two drinks, and no alcohol in the year prior to the study. Alcohol users were defined as individuals who drank during the past year but who were not defined as misusers. Alcohol misusers were young people reporting drunkeness at least six times in the previous year or negative consequences as the result of their drinking in the past year on at least two or more occasions. In the interval between the two surveys, 1974 to 1978, abstainers declined by 1.4% from 19.6% in 1974 to 17.2% in 1978. During the same period of time, alcohol users declined from 54.3% to 51.7%, a net change of 2.6%. Part of the decline in alcohol users seems to have been made up by those classified as alcohol misusers. That figure rose from 27.1% in 1974 to 31.2% in 1978.

Johnston, et al. (1982) note that while daily adolescent alcohol use has remianed consistent at 6% for the last seven years in the high school senior population, drinking for the purpose of intoxication has increased dramatically. The senior class of 1981 found 41% of its members reporting consumption of five or more drinks on one occasion within two weeks of the date on which they were surveyed. Clearly, this binge drinking is drinking for the purpose of getting drunk rather than drinking to be social, as is the more usual case with adults. Occasional drinking has been a typical right of passage for adolescents in America. As Cohen (1981) has pointed out while underage drinking is legally forbidden, it has been condoned or at least understood by most parents and authorities. Consequently, it can be assumed that youthful drinking is the direct result of contemporary cultural attitudes towards the use of alcohol.

In attempting to define drug abuse, several studies have been examined. These indicated that there are no specific traits which define the drug abuser. One experimental study (Goldstein & Sappington, 1977) indicated that drug use is not an isolated behavior trait, rather it is one way drug users cope with life's problems. Ulmer (1978) stated that drug abuse can be defined as a set of behaviors which are learned socially through behavioral modeling and are reinforced through a menu of reinforcing consequences. This definition results from the contention that drug use behavior is socially learned and subject to behavioral intervention. The Educational Research Science, Inc. (ERS, 1975) published a report and defining "drug" use ranging from caffeine to heroin. Hence, various drug treatment programs define drug abuse in several different ways. Some programs focus on illegal drugs such as cocaine while others may restrict drug use to tobacco and alcohol which are legal substances.

The National Commission on Marijuana and Drug Use defined irresponsible drug use the following way:

1. when the manner or circumstances of use pose a threat to the safety or welfare of others.
2. when the pattern of use substantially impedes or risks the impairment of the individual's social and economic functioning.
3. when a pattern of use reduces the individual's options for self-fulfillment by impairing his faculties or retarding his development.

Personality and Behavioral Variables

In general, various studies have indicated that there are no definite pervasive and global characteristics of personality that distinguish the drug abusers from a nonabuser (Ray, 1972). However, several studies have uncovered specific characteristics related to drug usage (Dudley, Mason & Hughes, 1972). Research implemented in the Charlotte (N.C.) Drug Education Center found that high school student drug usage patterns correlated highly with the following psychosocial states:

1. poor image of self
2. negative or rebellious social attitudes
3. poor communication with parents/incohesive family life
4. lack of positive commitment to school
5. parents who drink too much
6. taking drugs frequently prescribed by physician.

Adolescents exhibiting the above characteristics were more likely to use drugs than those who did not. The investigators further found that hard drug users had a more aggressive attitude toward themselves and their contact with others than the nonusers. Hard drug users also showed a stronger rejection-aggression relationship toward their fathers than nonabusers.

Goldstein and Sappington (1977) found that in a sample of college freshman, who were more insecure and pessimistic, as measured by the Minnesota Multiphasic Personality Inventory, drug use was more frequent. Nevertheless, the investigators noted that drug usage was not an isolated character trait, rather it was one component of a behavior pattern which helped users cope with problems. Preusers appeared more socially skillful, resistant to authority, adventurous, and impulsive while the non-users were reserved, compulsive, and more compliant. The subjects were from Caregie Mellon University not a typical American college. This must be taken into account when evaluating sample representativeness. That is, samples drawn from schools which stress intellect, achievement, and motivation for entrance may present a confounding factor in generalizing the findings of the Goldstein study.

Personality correlates of multiple drug usage where studied by Kilpatrick, Sutker, Roitzsch and Miller (1976). Polydrug use was described as exposure to several types of psychopharmacological agents. Seventeen polydrug users and 17 controls were examined through a variety of personality measures (Eysenck Personality Inventory, State-Trait Anxiety Scale and the Zuckerman Scale). The investigation stated that multiple drug users were more neurotic and candid, higher in state anxiety, and high in sensation seeking than nonusers. No differences were found regarding ego strength, extraversion, or fearfulness.

Kilpatrick, Sutker, Roitzsch, and Miller (1976) emphasized that anxiety can be a situation specific trait. This should be considered in evaluating data with reference to anxiety in drug users. The sample was white with highly questionable representativeness. Notwithstanding past research studies (Stuker & Moan, 1973) have indicated that blacks restrict their drug use to opiates and CNS depressants while whites have a varied repertoire of drug useage. Kilpatrick suggested that his results can be generalized to male veterans 35 years and younger and possibly the young male population in general.

Klonoff and Clark (1976) studied the attitudes and drug patterns of heavy marijuana users. They found that the heavy users have a different subjective view of the drug's effect than the light users. The subjects tended to view multiple drug usage as more acceptable. The heavy users tended to use other drugs such as psychedelics and cocaine more than did light users. An equal representation of males and females were included in the study: however, more of the females were married or cohabitating than males. The chronic group of marijuana users tended to be unemployed.

In general, the work on personality variables and drug abuse has been done on adult (nonrepresentative samples) and on hard core (narcotics) adult drug users. Little is known about personality variables of adolescent drug offenders.

Research studies concerning drug abuse have concluded that social correlates are an integral part of drug use and abuse. Anhalt and Klein (1976) investigated the factors of family instability, student personal problems, and low academic performance on drug taking behavior and found that they were highly correlated. They felt that drug use was often motivated by attempts to reduce painful feelings. Most of the illegal users and nonusers agreed that drug education programs and legal threats had little influence on their drug use. The sample population consisted of 3,800 students in grades eight and nine. The families of drug users had a significantly higher incidence of family stress including divorce, separation, alcohol abuse, and drug abuse. The drug abusing adolescents were more prone to social isolation, depression, and parental distrust. Over 80% of marijuana and hashish users indicated they tried the drugs out of a desire to experiment.

In terms of characteristics associated with alcohol use, Rachal, Guess, Hubbard, and Maisato (1975) cite three predictors as important in understanding why adolescents begin alcohol use. The two most critical are peer and parental influences with a third less significant, being the setting for alcohol misuse. Alcohol misusers appear to begin drinking at an earlier age than users and that males generally begin drinking earlier than females. Also indicated in the data was the discovery that alcohol misusers reported relatively high rates of marijuana use. By the same token, almost all of the abstainers reported no use of marijuana during the preceeding six months.

Problems experienced by alcohol users and misusers took place in five distinct areas. By far, for both sexes of the highest percentage of the five problem areas was driving after having a "good bit" to drink. This particular problem which several states have attempted to address by raising the drinking age subsequent to having lowered it. Anecdotal evidence seems to indicate success in reducing traffic accidents and deaths by raising the drinking age.

Diagnosis and Behavioral Signs of Abusers

Substance use disorders are presented in the several categories in the DSMIII (APA, 1980) from 304.0 to 305.9. Within this category a distinction is made between the non pathological use of substances from substance abuse. Three factors are involved in making such a distinction: (1) pattern of pathological use; (2) social impairment or occupational functioning because of the use of drugs; and (3) duration of use with abuse requiring a duration at least one month.

Substance dependence is considered a more severe form of abuse and has associated with it tolerance and withdrawal. In order for tolerance to develop, increasingly greater doses of the substance are necessary for the user to achieve the desired effect. Withdrawal consists of physiological or psychological effects, or both, when ingestion of the substance stops.

DSM-III recognizes five classes of substances associates with both abuse and dependence: alcohol, barbiturates or similarly acting sedatives, or hypnotics (e.g., quallude), opioids, amphetamines, and cannabis. Three classes of substances are recognized by DSM-III associated with abuse only because no physiological dependence has been demonstrated: cocain, phencyclidine (PCP), and hallucinogens.

In discussing why certain substances are abused, Cohen (1981) notes that they all alter consciousness and mood. Changes in awareness are not necessarily always in one direction. Some drugs of abuse blot out consciousness entirely, others intensify awareness vastly. Euphoria is the mood sought by this consciousness alteration. It can be achieved three distinct ways with substances of abuse. Cocaine and large doses of amphetamines appear to act in the same way that electricl stimulation acts on clusters of noraderenergic neurones in the posterior hypothalamus. Ecstasy and elation resemble the stimulation of the reward centers brought about this way.

Euphoria can also be achieved by tension and drive reduction and the state of reverie and drowsiness associated with such change. Responses such as this are derived by the action of the narcotics which work on serotonergic mechanisms.

The depression of inhibitory controls on affect and behavior can be experienced as euphoric. Chemicals that depress CNS function, hypnosedatives, anxiolytics, alcohol, and the volatile inhalants, produce this effect. Many people experience this as relaxing and pleasurable. Larger doses depress other functions including memory, judgment, and rational thinking. These too can be experienced euphorically.

Like DSM-III, Cohen notes tolerance, dependence, and withdrawal as pharmacological factors to consider in drugs of abuse. He further specifies cross tolerance as diagnostic. Briefly, a person with tolerance to one substance of a given class is tolerant to all in the class. For detoxification, this means that any member of the class can be used to gradually reduce the dosage and detoxify the individual. This is known as cross dependence. There is cross tolerance and cross dependence between all the narcotics and between all the hallucinogens like LSD, mescaline, and psilocybin, but not to THC.

Diagnosis of substance abuse with children and adolescents can be assisted by observation of three areas: physical, behavioral, and emotional.

Physical

Physical evidence can occur in a variety of systems. The skin of the young abuser can show discoloration on the fingers. Heavy pot smokers tend to have a discolored thumb and forefinger. The discoloration is much like that on the first and middle finger of a tobacco smoker. "Tracks" or needle marks are common on those who inject drugs, but most school psychologists will not see this. A rash can be caused by almost any drug.

Eyes can also give evidence of drug abuse, while the drug is in the system. Dilated pupils can be the result of exposure to hallucinogens, volatile solvents, or stimulants. Red eye or conjunctivitis is associated with alcoholism and cannabis use. Constriction of the pupils occur with opiate injection. However, none of these effects may be noticable.

Persistent smoking of tobacco, marijuana, or hashish can lead to bronchitis or a heavy cough. Marijuana can also produce an increased heart rate and a dryness in the mouth. Rapid pulse rate is also associated with amphetamine use as well as hallucinogens or cocaine.

Many drugs will produce nausea and vomiting when they are taken. Most of us are familiar with this effect from too much alcohol, but peyote and LSD can produce similar effects. Sometimes the first several injections of opiates produce vomiting. On the neurological front, headaches can result from amylnitrite inhalation as well as in alcohol hang-over or solvent sniffing. Insomnia can be produced by ingestion of hallucinogens and stimulants, while drowsiness can be caused by sedatives, cannabis, tranquilizers, and narcotics. Amphetamines and cocaine can produce hyperactivity. Conversely, depressants can produce slurred speech and uncoordinated movements.

Behavioral

Sleep/wake cycles are subject to alteration when people abuse drugs. Changes in friends, appearance, or grooming are common (MacDonald & Newton, 1981). In addition, a decline in school performance is frequently associated with drug use. The young person's grades may not decline to the level of total failure, but maximal performance will not be achieved. Drug abusing children and adolescents tend to lose interest in family and extracurricular activities. The football or track star who suddenly decides not to go out for the team his senior year is a good example.

Emotional

Dramatic swings in mood are not uncommon emotional indicators of substance abuse. Irritability or even tantrums may occur when the child is questioned about his whereabouts or homework. Depression, while common in adolescence, can also be an emotional indicator of drug use. Social isolation can also be indicative. In addition, drug abusers are often children with low self esteem who don't feel that they can alter the course of their lives through their own actions.

Urinalysis

A diagnostic tool, not directly available to the school psychologist, but worth mentioning here is urinalysis. Urinalysis has been a standard procedure in methadone maintenance programs. However, the use and technology of urine-screening has grown over the past ten years to the point that it is possible to detect minute amounts of drugs for relatively long periods of time (DeAngelis, 1973). Many of the tests, briefly described below, are available to pediatricians through their usual laboratory.

Thin-layer chromatography (TLC) is a procedure that is sensitive to morphine, barbiturates, and amphetamines. Results can often be obtained in two hours. Gas Liquid Chromatography (GLC), while somewhat more sensitive than TLC, requires more skilled technicians and equipment. GLC is often used as a method to confirm positive results for methadone, propoxyphene, and phencyclindine. Turn around time is also about two hours. Enzyme Multiplied Immuno Assay (EMIT) techniques are the latest development in screening technology. Many labs use the EMIT test for codeine, morphine, and cocaine. Additionally, and potentially most important with adolescents, the cannabinoids are detectable with EMIT procedures.

Marijuana, at least the THC component, has such a long half-life that positive EMIT tests can be obtained up to 21 days after it has been ingested. Of course, factors such as the THC content of the marijuana and individual's metabolism play a role. While the test in not quantitative in nature, it does yield information on the presence or absence of the drug. In addition, it appears to result in no false positives (Mac Donald, Note 6).

Perhaps it would be worthwhile to trace the steps that seem to be followed by the adolescent drug abuser. Newton (1981) has described five stages of adolescent drug use by modifying the chemical dependency model of the Johnson Institute (1980). His stages are (0) exposure to drugs; (1) learning the mood swing; (2) seeking the mood swing; (3) preoccupation with the mood swing; and (4) using drugs to feel normal.

Stage (0)

A variety of pressures impinge on young people to use drugs at this stage. A hedonistic attitude in society is one. This live-for-the-moment philosophy is one that prescribes no delay in gratification. Another cultural pressure is prevalent in mass media. A commom theme in advertising implies that difficulties are easily overcome by ingesting medications: "life got tougher - so we got stronger", "how do you spell relief". Alcohol is advertised more and more as a reward for achievements - from climbing to the top of a mountain to being promoted on the job. Entertainers and sports figures are employed to pitch alcoholic beverages. This negative role-modeling is further exacerbated by stars who tout the wonders of drugs. Finally, adolescence is a time for curiosity and experimentation. Being accepted and part of the group often means trying the latest high.

Stage (1)

Stage (1), learning the mood swings, involves introduction to a chemical that makes the individual feel good--the euphoria that Cohen mentioned. Typically this happens with the peer group. Previously heard warnings about the dangers associated with drug use or its deleterious effects are negated when a mildly pleasant experience results. Affect returns from euphoric to normal but in the future the young person will be tempted to regain the same state in times of stress.

Stage (2)

In Stage (2), seeking the mood swing, the youngster is no longer content to use drugs when friends have them or at a party. Usage progresses from occasionally, to every weekend, to occasional weekday use, and finally to regular weekday use. Time is invested in obtaining drugs and the adolescent developes feelings of pride over how he "controls" his use. Polydrug use at this point is common. While the euphoric periods are more frequent, coming down can involve guilt and mild discomfort. Blackouts or amnesia for part or all of the high may occur.

Stage (3)

Stage (3), preoccupation with the mood swing, finds the adolescent devoting a major portion of his time to getting high. While social drug use continues, solitary use is also part of the picture. Because the cost of staying high is great, the child frequently is dealing drugs to support his habit. Dropping out of school is a frequent answer to the poor grades that usually take place at this stage. In addition, delinquent acts are common. Lying accompanies anger and aggression that result from confrontations. Paranoia associated with prolonged THC use can take place (Kolansky & Moore, 1971). Self worth is deteriorating as are family relationships by this point. When not high, the user may be ashamed and otherwise emotionally pained.

Stage (4)

By Stage (4), using drugs to feel normal, there is no more euphoria. The drugs are used to get started in the morning and keep going throughout the day. Efforts are no longer made to conceal drug use. A child at this stage is referred to as a "burn out".

Treatment

Over the years as the problem of drug abuse has grown, a variety of services for drug abusing young people have come into being. Although these services have come primarily from the public sector as more knowledge on substance abuse treatment has become available, the private sector has responded. Traditionally community mental health centers or local health departments have provided treatment for those with alcohol and other drug problems. Therapy that is individually or group based has been the norm with a recent trend toward family involvement.

Treatment for drug abuse, other than alcoholism, probably began with the treatment of heroin addicts. Heroin treatment, not a major problem drug that the school psychologist encounters, gave many drug abuse therapists their initiation into the field. In the outpatient setting, many programs employ methadone maintenance as a primary technique. Methadone is a synthetic opiate that can decrease an addicts craving for heroin. If heroin is injected while the individual is on methadone, it ordinarily produces no euphoria (Cohen, 1981). It is administered orally, thereby removing many of the discriminative cues that increase the high from injections. Methadone is also relatively inexpensive. However, methadone maintenance has been criticized because it substitutes dependence on one chemical for another. It is furthermore advised only after the failure of other therapies such as detoxification especially with juveniles.

The work with adolescent drug abusers has followed several different lines. Teenage abusers have been required to attend weekly sessions in which knowledge of drugs was imparted. The reasoning being that if the users had more knowledge of drugs, they would be less likely to use them. This approach was then extended to all students, not just users; thus, the material about drugs was included in a course or was presented separately with all students attending. With all students taking the course, it was thought that the knowledge would prevent some students from even beginning to use drugs. Also there was the possibility that peer pressure by an informed student body would have an effect on users. As time went on, a variety of treatment techniques were developed such as family involvement, other activities, behavior modification, etc.

In 1975 the Educational Research Science, Incorporated, published a report (Bushey, 1975) which outlined the major goals, approaches, and evaluation procedures utilized in school based drug education programs in the United States. The drug education programs are typically spearheaded by school

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administrators and teachers. The universal goal of any drug education program is to curtail the use and eliminate the abuse of drugs by students, however, there is no agreement on specific program objectives. A Drug Abuse Council bulletin outlined the following seven goals for elementary and secondary drug programs: (1) to increase an individual's knowledge about drugs; (2) to affect an individual's attitude toward personal consumption of drugs; (3) to alter an individual's drug use behavior; (4) to increase an individual's participation in alternatives; (5) to clarify an individual's values; (6) to improve an individual's decision making skills; and (7) to improve an individual's self concept. The various drug programs may include one or all of the above objectives, which consequently lead to various treatment approaches according to each specified set of goals. Confusion regarding the effectiveness of treatment and goals originates with this heterogeneity of applications. Drug education programs are often incorporated into the existing school curriculum or offered as an extracurricular course. The length of the drug education programs ranges from a few weeks to months.

The two types of approaches are comprised of cognitive and affective programs. The cognitive program focuses on educating the drug offender about drug facts and information which include the drugs harmful effects. The affective approach centers on changing the behavior of the drug offender. In most instances, school drug education programs incorporate both cognitive and affective components.

From an evaluation of the drug education programs, there are a variety of goals that are sought. The most common goal has been to increase the drug offenders knowledge about drugs and their harmful effects. In some cases, this has been the exclusive objective of the program with the underlining premise being that once the harmful effects are known, drug use would subsequently decrease. Evidence has indicated that this premise is for the most part incorrect. The factual approach has often led to increased drug use or no change at all. Furthermore, the National Commission on Marijuana and Drug Abuse reported that the massive volume of drug education programs has been counterproductive and may have stimulated further drug use and heightened curiosity about drugs.

The second goal affecting the individual's attitudes toward drug use is directed at developing specific attitudes, based on previous knowledge. The pitfall of this goal is that attitudes are not always altered by facts, rather, attitudes often influence how facts are preceived. The drug offender may understand that drug use is harmful, however, it may not change behavior. During adolescent years, attitudes toward drugs are more often influenced by peers than adults and the drug user may pay less attention to the advice of parents, counselors, and teachers. The Colorado Department of Health publication, Drug Education Handbook, states that often times scare tactics emphasizing drugs harmful effects are ineffectual. For many young people, risk taking and inviting death or injury takes place in their effort to escape boredom, assert their individuality, impress peers, prove something to themselves, and similar motivations. The National Commission on Marijuana and Drug Abuse indicated that no information regarding drugs is preferable to damaging information which leads to destroying the credibility of the source.

The third goal, changing the drug offender's behavior, is ideal, however, it is difficult to achieve. Of the seven major goals of drug education, this goal appears to be the most difficult to define and accomplish. The school systems have received the responsibility for behavior change yet student drug abuse has not emanated from the schools and cannot be resolved by them alone. It was noted that drug use is an overall life style and includes an individual's complex value system. With today's increased drug use statistics, many researchers feel that a slowing of drug use and a change from "hard" to "soft" drugs is more realistic and optimistic than expecting drug use to cease altogether.

The fourth goal encourages drug offenders to participate in pleasurable alternatives to drug use. The key to the alternatives approach is providing acceptable, attractive, and attainable alternatives which offer active participation and involvement. A major factor for drug use is escaping boredom in life and adolescents report that hallucinogens aid in creating emotional experiences which reduce boredom. Alternative courses can be incorporated into the regular school curriculum or an extracurricular activity. The alternatives approach was offered in the Monticello (Arkansas) Public School system and included mini-courses such as yoga, ecology, guitar, and child care. At an extracurricular level, intermural sports and activities were offered.

The fifth goal focuses on enhancing an individual's ability to clarify his or her values. Students are often exposed to varying and conflicting value systems and a values clarification approach would provide skills in decision making for the developing adolescent. In achieving this goal, a peer group approach has often been utilized through rap sessions, communication workshops, and specific projects. Through a supportive structure, students are able to communicate their feelings and express things of importance to each other. Directive as well as non-directive approaches have been applied.

The sixth goal involves improving a student's decision making skills which often goes hand in hand with values clarification. The focus is on teaching the student to weight the pros and cons of drug use and decisions regarding life in general. Within this approach, students are encouraged to explore substitute experiences for drugs which are equally appealing, exploration of the students' values and beliefs, discussion of the student's self image, strengths and weaknesses, and an exploration of the students' exposure to peer and adult pressure in using drugs.

The seventh and final goal is concerned with improving an individual's self concept. Several researchers have expressed a correlation between drug abuse and low self esteem. The question arises regarding the school system's responsibility in providing environments which are condutive for developing healthy self concepts and how to accomplish this. The answer includes providing the basic academic curriculum and the utilization of behavioral techniques. Low self esteem occasionally emanates from learning disabilities and failure to attain expected achievement goals.

Numerous types of drug education programs have been developed and implemented, however, with varying degrees of success. Behavior therapy is a relatively new area of treatment and has been applied to several studies. Ulmer (1978) presents behavior therapy as a promising approach to drug abuse treatment and research. He reports effective pilot studies including token economy, aversive conditioning, contract writing, covert conditioning, relaxation training, and combinations of these techniques. Several treatment approaches attempted in the past have shown limited success including law enforcement, methadone treatment, and residency programs. Behavior therapy offers the promise of teaching clients to learn control over their drug using behaviors. Ulmer contends that drug using behaviors are socially learned and are, therefore, subject to behavior modification techniques. Drug abuse can be viewed as a behavior pattern which is attained socially through the modeling of behavior and is reinforced by a variety of consequences. Several positive reinforcers are listed which include social recognition, peer approach, anxiety reduction, and avoidance of withdrawal symptoms. An outline is presented for behavioral program implementation concerning treatment environment, staff selection, training materials, and patient screening. The environment should closely resemble the drug abusing areas which initially promoted client abuse, thereby enabling generalization of effective treatment results. Staff selection should be based on motivation to learn behavioral techniques and its drug abuse application. Patient selection should include a motivation to change and remain drug free. In summary, behavior modification has its niche in drug treatment, however, behavioral techniques in conjunction with other therapies is felt to be the most successful approach. Behavioral research studies fail to include long term follow-up data which is critical to program evaluation results.

Additional areas of drug education have been examined including a peer group approach to drug education.

Smart, Bennett, and Fejer (1976) conducted a study to determine the effects of a peer oriented approach to knowledge, attitudes, and drug usage of ninth graders in Ontario, Canada schools. The researchers compared the peer approach to a no-treatment control group. Past peer oriented programs were presented, however, program effectiveness has not been extensive, control groups were not utilized, and the follow-up period was approximately one month. Smart, et al. report that student leaders were selected for classroom instruction and discussion. A questionnaire was administered at program termination and after a six month follow-up period. Approximately 250 students completed the questionnaire. Knowledge scores did increase for the experimental group with no change in pre and post test scores for the controls. Attitude changes regarding drug use were nonexistent for both groups. Drug use increased for both experimental and control groups during the six month follow-up period. These results are consistent with other drug education programs which indicate that student drug knowledge and awareness does increase, while attitudes towards drug use remian the same.

An outpatient drug program for adolescent students was conducted by Gottheil, Reiger, Farwell, and Lieferman (1977). Their treatment paradigm centered on increasing communication through art, music, group therapy, and individual counseling. After four months of treatment, staff, school personnel, and students revealed that drug use had decreased significantly while general adjustment had increased as well as school attendance. The treatment subjects also improved in work and study habits and behavior, however, these differences were not significant. The subjects received treatment one half day per week for four months.

Family therapy for drug abuse is a relatively new pnenomeonon. Stanton (1979) points out that many drug abuse authorities have considered family involvement an essential component of the onset and maintenance of substance abuse behavior. However, in contrast to alcoholism treatment, which has viewed family involvement critical to change for a long time, it was not until 1976 that documentation of family participation in drug therapy became evident (Coleman, 1976). Work done at the Addicts and Families program of the Philadelphia Child Guidance Clinic has demonstrated not only the clinical advantage, but has also addressed the cost/benefit angle of treatment (Stanton, 1981). Family therapy comes in many different varieties and forms. Despite this diversity, Stanton, in reviewing the available outcome literature (1979), notes that ". . . inherent leverage of significant others can be used to help the drug-abusing member overcome his problem rather than serving as a force that maintains it" (pp. 254). Kaufman and Kaufman (1979) have edited an entire book devoted to many varieities of family therapy with drug abuse. Haley (1980) presents a transcript of a case treated with strategic family therapy. The therapist put the less involved parents in charge of the drug abusing young person's life until he demonstrated more competent behavior.

The approach presented by Haley is similar to the work done at clinics providing family therapy focused on substance abuse problems for adolescents (Petok & Morales, 1982). In this approach, parents are encouraged and motivated to take charge of a young persons life until the child sustains drug-free and productive behavior.

A relatively new organization, STRAIGHT, INC., has developed a treatment program for adolescent drug users. This program is described as quite authoritarian and has been criticized by some as being akin to brainwashing. The program does involve the parents and has reported favorable results with what might be described as hard core users.

Prevention

Prior to 1974, alcohol and other drug prevention efforts in the United States were essentially non-existent. Crisp (1980) notes that substance abuse prevention is a concept that has only recently gained acceptance with drug abuse workers. Also as Worden (1980) reports, alcohol prevention programs have run the added risk of going against the major vested interests of the brewers and distillers industries. Nevertheless, the U.S. Surgeon General's report of 1979 cited prevention of drug and alcohol use as one of the top 15 health priorities of the nation. Some authors (Earle, 1980; Payton, 1981) argue that primary prevention activities must take place at a social level. This view contends that political/social factors are more important than individual characteristics, particularly when minority people are concerned. Three arenas for the presentation of prevention messages are promising: education institutions, media, and parents.

Educational Institutions

Initially, a good deal of drug abuse prevention information was focused in the educational setting and directed at children. Programs such as that, run in Ontario, Canada (Burford, 1981), have focused on presenting information in physical education and health courses regarding substance abuse. In addition, programs that specifically seek to promote positive peer culture have been employed in the schools. Positive peer culture approaches seek to provide positive alternatives to drug abuse. Crews (1981) discussed an intensive curriculum program aimed at elementary and middle school children that teaches pharmacology, the use of drugs and their impact on health and behavior. An additional aspect of this program was the use of decision making skills taught by school guidance counselors.

Some school systems have chosen to focus on the teaching of drug education within biological sciences only (Rudolph, 1981). Their reasoning being that the problem is best approached from a health or biological point of view rather than from a sociological point of view. This philosophy takes the stance that use or non-use of drugs is not a social issue. However, the potential harmful effects are clearly biological. This is markedly different from the view taken in the late 60s or early 70s, when drug usage by young people was seen as a reaction to America's involvement in the Viet Nam War.

Collins (1980) assessed the effects of a school based peer education program on the prevention of alcohol abuse. Decision making skills were taught as an adjunct to regular health education classes on alcohol. While most of the experimental groups showed an increase in knowledge about alcohol, there was no concomittant decreased involvement with alcohol. However, specifically training junior high school students to resist social pressures to use tobacco, alcohol, and other drugs did substantially reduce these youngsters rate of usage (McAlister, Perry, Killen, Slinhard, & Maccoby, 1981). It would be fair to say that such variable results are not uncommon. Of course, one of the difficulties in assessing the impact of these programs is that unless pre and post measures of drug use, other than questionnaire data, are employed, it is hard to obtain the most accurate information. Since most school settings are not conducive to collecting urinalysis specimens, this is a task that is anything but easy.

One innovative school based prevention project that has received recent attention is the ALPHA classroom concept. Eleven of these classrooms exist in elementary schools in the State of Florida. Children with poor coping skills and the potential for future substance abuse are identified by their teachers, and with parental approval, are placed in the program. Three days of each week are spent in the ALPHA class with the remaining two days devoted to the child's regular classroom. The focus in the ALPHA classroom is on improving decision making skills and behavior control. The approach is decidedly behavioral with generalization and fading pre-planned.

Media

Media efforts at drug abuse prevention are limited at best. A small budget is available on an annual basis from the Federal government; the majority of this money being targeted for treatment programs. Nevertheless, some educational media material is available from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the National Institute on Drug Abuse. Both agencies have also been involved in the production of public service announcements for radio and television.

In January, 1982, NIAAA launched an Alcohol Abuse Prevention compaign through the auspices of each state's alcoholism authority. A majority of the emphasis will be placed on youth issues particularly the dangers associated with drinking and driving. Four TV and three radio public service announcements have been produced with contemporary themes. Local agencies can receive information or technical assistance by calling, toll free (800)227-2846 and asking for the Alcohol Campaign Coordinator.

Lately, due to recent Federal cutbacks and a trend to less governmental intervention in many areas, there has been a call to the advertising industry to provide prevention dollars for media presentations. Clearly, an industry with the expertise to sell such essential items as flea collars, trash mashers, and self-adhesive room deodorizers has the skill to package and promote socially beneficial material too.

Parent Movement

In her 1979 pamphlet, "Parents, Peers, and Pot", Marsha Suchard, an Atlanta English professor, helped to launch what has been called the national anti-drug parent group (DeVries, 1982). More accurately, the National Federation of Parents for Drug Free Youth is part of a grass roots drug abuse prevention movement that includes over 3,000 parent groups across the U.S. Lately the National Federation has gained notoriety with the endorsement of Nancy Reagan and the former head of the National Institute of Drug Abuse, Dr. Robert DuPont.

Most local parent groups encourage communication between parents of adolescents. Frequently, codes of non-drug behavior are an outgrowth. Also encouraged are more frequent and positive interaction between parents and children, that parents get to know their children's friends and parents, and that all group activities are adult supervised.

Another major outgrowth of the parent movement has been a variety of legislation. Twenty-five states have passed laws banning the sale, distribution, and manufacture of drug paraphernalia. Fourteen states have passed stronger legislation regulating the sale of over-the-counter, look-a-like drugs. Six states have passed stronger search and seizure laws for drug trafficking. Eleven states have raised the drinking age. Much of this legislation was promoted by strong parent support.

To be sure there are critics of the National Federation and related groups. Some see them as imposing right wing morals at an opportune time. Others talk about the leadership of these groups as a reactionary and with the potential for a ". . . search-and-destroy mentality". To date, there has been no controlled research of the effect that these groups have. However, they have provided parents, who often feel helpless and hopeless when it comes to drugs, with some alternative behavior. More importantly, they serve as outlets for reliable empirical evidence from NIDA and organizations such as the American Council on Marijuana and other Psychoactive Substances, which provide clear messages to young people about the effects of drugs. There is arguably some validity to the notion that much of this information is best disseminated from the home.

It would seem that involvement of parent groups on drug usage by young people is a potentially fruitful area. If these groups do prove effective, they could be a cost effective means of reducing drug abuse. School psychologists seem particularly well suited to conduct such research since they are in close contact with both parents and children. In addition, school psychologists with their unique knowledge of the learning process would well identify which components of the parent movement are most effective in changing or preventing children's drug taking behavior.

Conclusions

From a view of the literature on drug and alcohol abuse among adolescents, it would seem that certain conclusions stand out:

1. There has been a continued increase in the use of drugs by adolescents, and the age at which a person starts to use drugs has been earlier.

2. With this increased usage, there has been an increased concern from society about the drug problems. With this concern has come more legislation directed at reducing drug usage as well as the development of more and different treatment techniques.

3. At this stage, it is difficult to assess the effectiveness of the different treatment techniques. Numerous studies have shown that adolescents can learn more about drugs and their effect, but that this knowledge does not seem to affect the use of drugs. There is a great need for continued research in this area; of particular importance is the need for clearer definitions, control groups, and a step by step description of the treatment technique used.

4. It would seem that it would be much wiser to focus on prevention rather than on treatment for obvious reasons. This area has not been pursued as extensively as has treatment.

While it may be too early to make such an observation, there are minimal signs that some adolescents might be less likely to use drugs than before. One reason given for this possible change is the death of those who have been labeled as "drug heroes"; those who have died because of drugs. It is well known that musicians, rock stars, actors, and others have portrayed drugs in an exciting, desirable manner. This is probably related to the increase of drug usage by adolescents. However, many of those labeled as "drug heroes" (e.g., John Belushi, Janis Joplin, Jimi Hendrix) have given the ultimate to communicate to teenagers that drug use can be fatal.

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JOURNALS:

Addictive Behaviors an International Journal

International Journal of the Addictions

OTHER SOURCES:

ACTION
Drug Use Prevention Program
806 Connecticut Avenue, N.W.
Washington, D.C. 20525

ALPHA PROJECT
OPERATION PAR, INC.
2620 Fifth Avenue, North
St. Petersburg, Florida 33713

The American Council on Marijuana &
Other Psychoactive Substances, Inc.
136 East 64th Street
New York, New York 10021

National Federation of Parents for Drug-Free Youth
9805 Dameron Drive
Silver Spring, Maryland 20902

National Institute on Drug Abuse
5600 Fishers Lane
Rockville, Maryland 20857

PRIDE
Parents Resources & Information on Drug Education
Georgia State University
University Plaza
Atlanta, Georgia 30303

STRAIGHT, INC.
P. O. Box 40052
St. Petersburg, Florida 33743

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